

# ABNORMAL PSYCHOLOGY AND EDUCATION

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FRANK WATTS

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**THE CONDUCT OF MIND SERIES**

EDITED BY

**JOSEPH JASTROW**

**ABNORMAL PSYCHOLOGY  
AND EDUCATION**

THE CONDUCT OF MIND SERIES

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ABNORMAL PSYCHOLOGY AND EDUCATION

By FRANK WATTS, M.A.

# ABNORMAL PSYCHOLOGY AND EDUCATION

BY

FRANK WATTS, M.A. (London)

LATE LECTURER IN PSYCHOLOGY, UNIVERSITY OF  
MANCHESTER, ENGLAND

INTRODUCTION BY

JOSEPH JASTROW

PROFESSOR OF PSYCHOLOGY, UNIVERSITY OF WISCONSIN



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## INTRODUCTION

The keynote of this volume is the emphasis upon the concepts and conclusions of Abnormal Psychology as aids to the comprehension and control of the educative processes. By way of perfecting his knowledge of human nature as well as his professional equipment, the teacher should be at home in the point of view of the abnormal. He will thus add a dimension to his insight; and if he has also the gift of the clinical sense, he will recognize and interpret character-traits and symptoms of behaviour in the school room more adequately and more correctly. What applies to teachers is equally true of parents.

There is a justifiable aversion to the term "education," because of its too close association with the technical business of the school; it must be restored to its full meaning as inclusive of the total processes of psychic growth-control. The concept of education is shaped by the view of the child nature; this determines the educative plan. The close inter-relation of the social-moral growth with the intellectual growth, and indeed, the acceptance of the former as the deeper and the larger factor in formative value, emphasize the bearing of Abnormal Psychology upon education. The point of view presents a double purpose: the one to illuminate the nature of childhood; the other to give

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insight and direction to the educative processes. These purposes have brought about a movement which promises to exercise a considerable influence upon the educational trends of the near future. The advance guard of the movement is formed by a small company of independent contributors, each with an individual approach to the common viewpoint. Their doctrines are certain to gain adherents rapidly; for the central ideas are in the air. What is needed is to make the movement articulate. Mr. Watts deserves recognition as a worthy pioneer. The progressive educationalist will accept his programme and commend its execution.

Abnormal Psychology is differently centred, differently focussed, than is the study of the insanities—the major and minor liabilities of the mental life to distortion and disaster. Historically and practically, the ministering to a mind diseased provides the dominant motive for the study of the insane. Abnormal Psychology profits by Psychiatry, but conceives its problems with a larger and a different interest, which is directed to the bearing of this knowledge upon the normal mental functions. There is no sharp division between the two expressions of a common nature and function. The abnormal is the normal in distortion and exaggeration; the normal harbours the features of the abnormal in miniature.

Abnormal Psychology includes a larger range of phenomena than find a central place in Psychiatry; it includes the study of the slighter deviations in status, the lapses, the traces, the intrusions of the subconscious, the varieties of irregular functioning, the

extremes of temperamental trends—the eccentric, the unbalanced, the genius, the criminal. It expands as distinctively on the side of the concepts which it develops and employs. Though these may find their more complete and dramatic application in the abnormal life, they find a richer and a more “educational” illustration in the normal types of behaviour and composition. This is notably true of the concept of the subconscious, which if rightly conceived rounds out the comprehension of total behaviour and personality in general significance as well as in light of specific mechanisms. It applies to the emphasis upon the deeper life of the emotions and instincts, tracing their importance in the analysis of character, in the composition of motives, as well as in the genesis of the neuroses; it makes plain how indispensable is a healthy emotional life in the maintenance of a proper mental hygiene. It applies to the concept of arrested development, which on the one side sets forth the nature of the defect, of all grades of feeble-mindedness and moral incapacity, and on the other traces similar limitations in the subnormals, who must make what adjustment they can to the social environment in which their lives fall. It applies in a different sense to the superior group, often complicated by special abilities and special liabilities. It applies to the social abnormal phenomena, the frailties of mob action, the suggestibility of contagion, the lowering of the level of response under prejudice and sentiment, as well as to the appeal to the social consciousness for co-operative values. It applies peculiarly to the concepts underlying the delineation of character types, which in

some aspects follow the clue of their abnormal and extreme expressions. In all these relations the concepts of Abnormal Psychology take the lead and move away from the special problems of Psychiatry. It is precisely these basic views that bear intimately upon the educative processes, and not only as protection against mental disaster, but as contributing to the insight into everyday character-traitS and ordinary motives of behaviour.

The two disciplines, Psychiatry and Abnormal Psychology, proceed with large overlapping interests and the fullest mutual appreciation. They converge upon the problems of Mental Hygiene in which education has a profound stake. The fundamental purpose of this combined approach is to offer to education the benefits of the wisdom of the psychiatrist, the cumulative knowledge of the assets and liabilities inherent in the vicissitudes of abnormal mental functioning. For the same inherent traits which dispose the human mind to abnormal manifestations are equally responsible for the potencies that, when realized, develop into the rich achievements of a well matured personality. To direct the child to the completest expressions of its endowment requires an understanding of the dangers and distortions that are as fundamentally involved in its nature-set limitations, as are the standard and desirable manifestations of the growing organism.

From these several approaches there emerges a general principle which may be spoken of as the "neurological" concept of behaviour. Behaviour thus becomes a matter of nerves. Naturally and properly, from the

point of view of value for the social-moral life, behaviour is a matter of morals, guided by reason. The goal of education is to make one a reasonable and moral being. It keeps steadily in mind the purpose to rationalize conduct and socialize it, so as to make good and effective citizens. The two formulations are not inconsistent; each is dominant within its proper domain. Yet the two must come to terms; and the claim of neurology must be fairly faced and freely accepted. Without it the possibility of clash is imminent; and the danger of treating as moral defects what are far more truly neurological symptoms is a real one. An imperfect view of the sources of behaviour is doubtless responsible for a good deal of the mistraining that invites moral crises, unfortunate emotional episodes, wrecked careers, and maladjusted individuals. It is the purpose of the movement to which Mr. Watts contributes, to prevent such disaster by a proper co-operation of the diagnostic skill of the neurologist with the wisdom of the sympathetic moralist.

In speaking of the "neurological" concept of behaviour, it is plain that the term is used for convenience only; nor is it exact. As a fact we know far less of the detailed neural basis of behaviour, than we do of its psychological nature. It would be more accurate to refer to it as the "psycho-biological" concept of behaviour. But the term "neurological" has become current and has the sufficient advantage that it refers definitely to a well-established neural basis of action. It keeps in mind that character-traits and behaviour-responses are matters of neural disposition, even though

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we know little of the precise mechanisms which make the character-trait and behaviour-tendencies of a well-adjusted, normal, efficient, contented, individual different from the quite otherwise manifested traits and behaviour of a maladjusted, uncertainly poised, unhappy and futile personality: which makes one child a normal, tractable, average pupil, and the other a difficult, irregular, partly superior, yet generally uncertain problem; which in different application may make the difference between success and failure. What applies to the larger problem applies to the details. In the wise interpretation of any and all traits and behaviour-responses with a view to guidance and direction, in adjusting the daily tasks and guiding the step-by-step unfoldment of the educative processes, the same principles are directive.

In regard to the special phases of the problem to which Mr. Watts confines attention, brief comments will be sufficient. The first illustration of his thesis relates to the modification of the educative problem introduced by the fact that the pupil is reacting group-wise in a social environment; that his responses are affected from the outset and continuously by the often neglected consideration that he is under social observation, and reacts in or with a group. Whether this complication is desirable or otherwise, need hardly be considered, since it is imposed by necessity and the educative processes must be adjusted to this condition. Yet the herding of children is clearly undesirable. To utilize the advantages and escape the disadvantages of the social milieu of the schoolroom requires tact and

discernment. The teacher becomes "a high-minded crowd leader." He justifies this function because he utilizes the susceptibility of the young to the technique of prestige, suggestion, and imitation to "elevate and energize." He appreciates that in so doing he is in so far postponing or laying aside the far more valuable method of response by independent reason. Both methods are justified; for the susceptibility to prompt sympathy and social suggestion is needed for many forms of co-operation; moreover, the former is often the more economical method of producing social cohesion and of shaping the individual to his part in the process. It works more directly and promptly than the slower technique of conviction which in some measure and increasingly plays its part. The use of the prestige-suggestion-imitation technique in the political field is widespread and illustrative, likewise in the inculcation of good manners and a social sense of decorum. Furthermore, there is but one time to fix habits, and that is while one is young; and the fixation by prestige and example, partly aided by reflection, works best for that period. That the tendency to be overinfluenced by crowd suggestion to the detriment of personality has its abnormal expression serves to re-enforce its significance as an educational procedure. While this application is in its central tendency social, it receives a sidelight from the "abnormal" approach.

For the application to the analysis of personality, the status of the earlier, deeper, subconscious forms of response is the guiding clue. The Freudian position must be met and a definite conclusion reached. For

## INTRODUCTION

Mr. Watts, as for most psychologists who retain a sense of proportion, the leading ideas of the Freudian system are sound and fruitful, while the extreme views and many of the details and implications are equally unscientific and unsupported. The emphasis upon the significance of the early experiences of childhood is a wholesome educational warning. Still more important is the recognition that the child begins life in a state of psychical anarchy, out of which the guidance of experience must gradually form a consistent personality. The nature of this unorganized "complex" of impulses appears in the abnormal varieties of behaviour to which it leads; for this the term "complex" has been reserved in a special sense. Child behaviour conforms to the type in which these "sub-self" expressions dominate; they are all strongly anchored to instinctive tendencies; they operate on the emotional, sub-conscious, only partially reflective plane. Out of them the life of reflection, the habit of reasoned action, is to be slowly developed. The educational bearing is manifest. On the one side, all desirable modes of behaviour must be linked to strong instincts; learn by doing, and give to doing a sufficient motive in an instinctive-emotional appeal. On the other side, the utilization of this driving force, from which all actions—whether blessings or the reverse flow—requires "sublimation," which is but a Freudian name for a process well enough recognized in older days. It is nothing more or less than finding a "moral equivalent" for strong impulses, an outlet desirable to replace an outlet natural but undesirable. For outlets must be found, and streams of impulse dammed

make for later trouble. "The human soul is a battle-field upon which the irrational impulses of the personality strive with the rational and ethical interests of the personality for the supremacy. The educator must justify his vocation by effectually assisting the latter forces to establish such a mastery that the conquered systems of desire will function not as rebels, but as willing citizens in the little kingdom of the mental life."

The third application is to the problem of the defective, introducing the concept of the subnormal and the unstable, both of which groups may find their representatives in the schoolroom. But this consideration is but a partial factor in their importance. The lessons of defect and arrest—derived from the study of the abnormal—bear directly upon the educational procedure. They have brought into prominence the individual factor out of which has developed—naturally reinforced by many other practical considerations—the technique of Mental Tests. The conclusion that subnormal individuals cease to progress at an early stage of development, and that the "mental age" represents the imposed terminus of the genetic process, is a momentous one for education and for psychology alike. It indicates how inevitably tasks must be adjusted to capacity, and how the nature-set limitations must be recognized. It directs attention to the mental level of different orders of learning. It makes clear that working upon and with concrete material is a simpler order of mental functioning than working with the symbols of ideas known as words. It directs attention to the complex factors compositely represented in what we

call for convenience efficiency. From a different angle, allied considerations have brought forward the difficult cases of personality in which defect is less conspicuous than distortion and perversion and resistances to normal impulses. Yet again it has made clear that the slower mental development of defectives, with their lower barriers, or stages of arrest, makes possible analysis of minute steps in the educative process, that are too hurried and too condensed for ready observation as they take their rapid course in the normally maturing and the bright child. It provides a slowed down genetic "film" of moving pictures showing relations escaping ordinary observation. In these and other aspects, the study of the abnormal contributes directly and indirectly to the insight that must guide the teacher's course and policy.

Mr. Watts' plan includes a selected group of illustrations, each contributing a distinctive feature to the total impression. These brief lessons in Abnormal Psychology carry their point and deliver their educational message. They constitute a pioneer venture in what promises to be a richly settled domain.

JOSEPH JASTROW

## PREFACE TO THE THIRD EDITION

The present edition has been improved by the insertion, at the end of Chapter II, of particulars of the Celebration Movement, and by a fuller discussion in Chapter IV of Intelligence Tests. A slight re-arrangement of some of the subject matter has been effected, and the opportunity taken to correct several minor faults.

It is hoped that the American teacher, who, no doubt, has begun to tire of the extravagant claims of many psychologists to the possession of secrets about human nature unguessed at by the vulgar, will find this book a sober account of some modern developments. The test of novel doctrine must always be : *Does it help us to understand better the things worth understanding?* Here we have tried to show that abnormal psychology, which deals with the irrational rather than the rational, the unconscious rather than the conscious, and the defective rather than the sound and whole, has in definite ways helped us to see some of the problems of education in a clearer light.

F. W.

LONDON



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# ABNORMAL PSYCHOLOGY AND EDUCATION

## CHAPTER I

### THE SCOPE OF ABNORMAL PSYCHOLOGY

#### § 1. The Pre-Scientific View of Mental Abnormality

IT is our intention in this book to take up the study of some of the recent advances in abnormal psychology with the object of discovering how far they have significance for the teacher. A complete account of the subject must be sought elsewhere. Our method is selective. We have omitted to discuss many interesting topics that might make the thoroughgoing psychologist think the book more useful, and have preferred to deal with such matters only as would seem to affect the work of school and classroom.

Abnormal psychology is the somewhat precocious offspring of the recent happy union of medicine and general psychology, those two sciences which divide the task of providing a knowledge of the ways and means whereby humanity may continue to keep itself sound in body and sane in mind. According to the view of many, the scope of the psychology of the abnormal should be limited merely to the investigation of the phenomena of psychopathology. Now, it is seriously to be questioned whether this limited view of the scope

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of the subject is the most profitable one. But it is beyond doubt that the deliberate and systematic study of the subject, however delimited, for the sake of the light it may throw upon the functioning of the normal mind, is quite a modern undertaking. A few brief remarks will serve to make this point clear.

The conception of the study of the abnormal as an aid to the understanding of the normal was naturally impossible while the obvious and more startling differences between normal and abnormal minds obscured their fundamental similarities; indeed, as long as the abnormal was thought to comprise factors at once mysteriously incomprehensible and unique, so long was the serious and disinterested study of the subject held to be a matter suitable merely for the occupation of the more eccentrically minded among philosophers, littérateurs, and doctors. It is noteworthy, therefore, that all the terms used in the pre-scientific period to denote abnormal qualities and conditions of mind were terms which stressed the facts of *difference* between the abnormal and the normal, and the appearance in English of the word "ab-normal" itself, indicating *some* relation at least with the normal, between the years 1830 and 1840, may well seem to herald in its origin and first use a more comprehensive view and a treatment of mental anomalies more in accordance with the dictates of common sense.<sup>1</sup>

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<sup>1</sup> In the *Dictionary of Medicine* compiled by Hoblyn in 1835, the term "abnormal" does not appear, but a variant of the term, namely, "anormal," makes its maiden appearance in print instead.

Until almost as late as our own times, it was the universal custom to explain unusual types of mind among men and women by reference to the agency of gods or of demons, just as the manifestations under notice were of a benevolent or a malevolent character. The sacred writings of many peoples may be made to yield abundant examples of this method of explanation. The Jews, for example, depicted King Saul in his periods of ungoverned fury as the prey of an alien and malignant spirit, and King Nebuchadnezzar during his seven years of madness as a victim of the vengeance of a god whom he refused to acknowledge. The Greeks, on the same principle, ascribed the insanity of Ajax and Orestes, of Lycurgus and Cambyses, either to the spleen or to the arbitrary judgment of the offended gods. The Buddhist writings, the Vedas and the Brahminical law books, also abound in examples of similar unhappy visitations of the doom of the supernatural powers upon the children of men. Indeed, we need go no farther than our own European history to find comparatively recent examples, as notably in the cases of Joan of Arc and Anne Askew, in the causation of whose abnormal-mindedness friends detected the finger of God and enemies that of Satan.

In consequence of the prevalence of such beliefs which were well-nigh universally held for many centuries, very little progress took place in the treatment and cure of abnormal-mindedness, and beyond the usual priestly attempts at exorcism, nothing disturbed the orthodox procedure—which was to deify, illtreat, or

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destroy, according to fashion or prejudice, those whom it pleased men to regard as mad.

It is true that at one period of history there were indubitable signs of the dawn of an era of intelligent methods of treatment for the more socially obnoxious classes of the abnormal as represented, for example, by the madman and the lunatic. The later Greeks and the wiser among the Romans came to regard the abnormally-minded person as deserving of care and pity, rather than of contempt and ostracism. An attempt at systematic attention, and a method of dieting which was unquestionably an improvement on the older method of "cure" by hellebore, was introduced, but it was not allowed to develop to any extent, for after the break-up of the Roman Empire in the west Christendom became overshadowed by the black clouds of superstition, and, as far as mental abnormality was concerned, for a thousand years ignorance and credulity reigned supreme. Sometimes, in moments of faith and enthusiasm, saints from among the abnormal were created and adored, but oftener, in the longer intervals of suspicion and distrust, the darker passions burst through into expression and were responsible for the untimely death in Europe alone of thousands of unhappily eccentric women, who were burned or otherwise put to death as witches.

From 1645 to 1647 a witch-finder named Matthew Hopkins succeeded in getting a hundred and twenty women burned as witches in Essex, Norfolk, and Suffolk. Lecky, in his history of *Rationalism in Europe*, says, in the course of a survey of the age of superstition,

"At Toulouse, the seat of the Inquisition, four hundred persons perished for sorcery at a single execution, and fifty at Douay in a single year. Remy, a judge of Nancy, put to death eight hundred witches in sixteen years. The executions which took place at Paris were, in the words of an old writer, 'almost infinite.' In Flanders, the persecution of witches raged throughout the whole of the sixteenth and the greater part of the seventeenth century, and every variety of torture was employed in detecting the criminals. In Italy, a thousand persons were executed in a single year in the province of Como; and in other parts of the country the severity of the Inquisitors at last created an absolute rebellion. The same scenes were enacted in the wild valleys of Switzerland and of Savoy. In Geneva, which was then ruled by a bishop, five hundred alleged witches were executed in three months."

In England, the laws which penalized "witchcraft" were repealed in 1736, but even when the burning of abnormally-minded women as witches became the exceptional rather than the general practice throughout Christendom, those persons who were unfortunate enough to lose their reason, or suffered conspicuously from marked mental disturbance or derangement, were shut away from any form of care, and imprisoned with the vilest of criminals in the dark and filthy dungeons characteristic of the older times, to be kept there like dangerously wild animals and loaded with chains. In 1815 the unhappily celebrated lunatic Norris was seen by many members of Parliament at the Bethlem

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Hospital, in London—where he languished in all for eighteen years—with a collar of iron on his neck, a belt of iron about his body, and fetters of iron on his hands and feet.

Burdett, in his *Hospitals and Asylums of the World*, wrote in 1891 as follows: “It is very difficult, no doubt, for the present generation to realize that less than forty years ago the treatment of the insane in this country [England] was horrible in many respects, and previous to that time was so brutal and inhuman as to make us hesitate to recall the actual facts.”

Fortunately, by the end of the eighteenth century a better method of treatment was beginning to make its effects felt. Pinel and Esquirol in France, and Connelly of Hanwell in England, were earning well-merited fame as the champions of a more humane and altogether wiser method of treatment. It was Pinel who struck off the fetters of his imbecile patients and set them to work in freedom in the fields. He is the representative forerunner of the modern psychiatrist, and it is in his day and no earlier that we must look for the beginnings of the science of Abnormal Psychology.<sup>2</sup>

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<sup>2</sup> Professor George Roberston writes to me with respect to the innovations of Pinel:

“The work of Pinel at the Salpêtrière in striking off the chains of the insane was not an isolated act, on his part, of humanity to the insane nor a sudden resolve. It was the result of several years of humane endeavour in the private asylum of Dr. Belhomme as is indicated by several pamphlets he wrote, so early as 1787. The government of France, moreover, had decided as the result of several Commissions of Enquiry and Reports to institute Reforms, and they selected as their agent for this par-

In the first edition this work of Pinel was wrongly attributed to Spanish influence, and I gladly accept correction.

### § 2. The Biological Standpoint

It should not be forgotten, however, that the nineteenth-century biologist played a not unimportant part in the genesis of the new science; it was he who dragged into the light of investigation those organic anomalies and abortions which had been relegated by the mediæval philosophers and doctors into the limbo of obscurity, and it was he who was able to point to the stranger factors which were operating in the organic world as providing valuable clues to the nature of the normal behaviour, and to the comprehension of the methods of the development of life in general. With the acceptance of the Darwinian hypothesis in biology, the abnormal was at once seen to be no more than the normal, functioning in an accidental or exaggerated form, or in unusually favourable or unfavourable circumstances.

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ticular purpose, Pinel. This resolve and this appointment, however, did not prevent the government from obstructing him when he instituted his reforms.

"According to Esquirol, the favourite pupil of Pinel who came from the same part of the country and who succeeded him, the first germs of the humane idea are to be attributed to the work of Howard in prisons, in which at that date many of the insane were confined. There was, of course, a movement throughout the whole world in the direction of freedom and humanity. In the year 1792 it was decided to found *The Retreat* at York. It however was not opened till four years afterward. The week before *The Retreat* at York was founded the Royal Asylum at Morningside was also founded."

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Thus we arrive at the modern biological conception that mental abnormalities are not unique, unclassifiable, and without useful significance, but that rather they are the expressions of normal tendencies which are more marked than usual, and which may, therefore, if suitably examined, throw much light upon the essential nature of the normal itself.

The fruits of this conception first came to maturity in the physiological field. The causes of mental aberrations were sought in congenitally faulty or damaged brain structure, and by a comparison, on the one hand, of the psychical effects of the extirpation of different areas of the brain substance, or artificial stimulation of the brain by the administration of drugs and other agents with the study on the other of cerebral degeneration and its effects upon behaviour, a satisfactory localization of the functions of the mind in the cerebral hemispheres was finally achieved, and the attempt to find physiological correlates for all psychical processes was justified as a sound principle of research. It cannot be said, however, that the expectations which were aroused by the brilliant discoveries of Munk,<sup>3</sup> Ferrier,<sup>4</sup> Goltz,<sup>5</sup> and others in this sphere have altogether been fulfilled in the commonly accepted results which stand today. For many mental functions no physiological concomitants at all have as yet been found such as will

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<sup>3</sup> *Ueber die Functionen der Grosshirnrinde*, Berlin, 1881.

<sup>4</sup> *The Functions of the Brain*, London, 1886. *The Croonian Lectures on Cerebral Disease*, 1890.

<sup>5</sup> *Beiträge zur Lehre von den Functionen der Nervencentren des Froches*, Berlin, 1869.

help us to understand the unique quality of the manifold forms of insanity. Consequently, the need for an alternative method of approach has been urgently felt by some investigators, and its direction has been clearly indicated through the researches of Charcot, Janet, Breuer, Freud, Jung, Morton, Prince, and Rivers.

It may be interesting and helpful at this stage to attempt a brief comparison between Abnormal Psychology and another vigorous offspring of the same parent, Experimental Psychology, accepting them in the ordinary but of course erroneous sense as distinct sciences. Experimental Psychology follows generally the method of the older physical sciences, and depends largely upon the artificial isolation under suitable and pre-arranged conditions of those factors which it intends quantitatively or qualitatively to study, relying upon repetition and variation of the conditions of the experiment to provide adequate means for the exhaustive study of the problems which may arise. In the province of Abnormal Psychology, nature has already, by the intensification of certain psychic factors, practically isolated, under the most favourable conditions, interesting material for study, or, as in the total or partial omission of mental factors, has furnished sufficient data to enable the student to form trustworthy estimates of their normal nature and functions without resort to the artifices of experiment. It may thus be said, then, that the experimental psychologist has to find the data which the abnormal psychologist has already to hand. The former may study, for example,

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the phenomena of memory by artificially introducing disturbances of function—by employing such means as the administration of drugs, or by hypnosis; while the latter may devote his attention to those pathological forms of memory represented in cases of amnesia and aphasia. Again, the experimental psychologist may study the phenomena of belief by means of skilful manipulation and arrangement of experiments in testimony and suggestibility, while the abnormal psychologist, with the same object in view, may take up the investigation of delusions and obsessions, of illusions and hallucinations. As time progresses, however, the scope of the two branches of general psychology must inevitably and to a very great extent overlap. Up to the present, the effect of experimental psychology upon the methods of abnormal psychology may be seen in the growing desire for artificial variation of the data of study with a view to the more thorough scrutiny of the theories which have been formulated—in many cases only too lightly—about the nature of the abnormalities involved, while the influence of the latter branch of psychology upon the former may be seen in the increasing transference of the interest of the experimenter from the investigation of matters of sensory discrimination, which have been proved to have very little—if any—value as indicating the general trend and efficiency of the mind, to the investigation of the facts of the intellectual, emotional, and æsthetic life of man.

From what has already been said, it may be gathered

by the reader that the normal may easily be separated off from the abnormal in practical work: this is not so. The delimitation of the one from the other follows purely arbitrary lines, and these have only been laid down with any attempt at scientific precision during the past few decades.<sup>6</sup> A graphical representation of men's mental "efficiency," based on the examination of large random groups of examples, would show us probably the characteristic bell-shaped frequency curve, with a huge number of cases representing the normal heaped about the dome and upper slopes of the curve, and a lesser number of doubtful interpretation shading off on each side by imperceptible gradations into the comparatively few cases of the definitely abnormal.

Before such curves could be even roughly interpreted an arbitrary definition of the nature of abnormality would have to be chosen. Even today it cannot be said that any single definition is free from defect, and as the subject becomes more and more thoroughly investigated, it will be found that the criteria of abnormality are almost infinitely more elusive than they were at first thought to be. For example, abnormal mental deficiency was treated at first as though it were merely a matter of defective intellect, and therefore discoverable by intelligence tests, but we are now beginning to see that the "reason" is only one of several factors which may be faulty enough to cause the kind

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<sup>6</sup> It may perhaps be said that to the all-wise inquirer there will never be anything abnormal, but to the finite mind the distinction is worth while as a working principle.

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of abnormality which we designate by the term "feeble-mindedness."

It may be said, however, that the conceptions of scientific biology, by supplying a new criterion, made the approach to a simple and satisfactory definition possible. When it was seen that all life was teleological in nature, then all processes which tended to serve the survival needs of the organism as one of a species could be accepted as normal processes, while those tendencies which were observed to have an opposite effect could be taken as abnormal. It is not enough, as is so often done, to take merely the average or the usual as the normal, and the unusual or the exceptional as the abnormal. In many periods of history, and among many peoples, practices were followed almost universally which we must nevertheless declare to be the expression of abnormal mentality. Examples of such practices may be found in the pages of Westermarck's *Origin and Development of the Moral Ideas*. In the field of ethics and social psychology these anomalies of social life should provide for the investigator what the organic anomaly provides for the biologist and the physiologist, an invaluable clue to the nature of normal living.

Having accepted the biological point of view, the reader will understand why some writers do not regard the science of Abnormal Psychology as limited to the study of psychopathology. The researches of Janet, Freud, Kraepelin, Jung, Rivers and others, while comprising the most interesting and brilliant contributions

to our youthful science, do not completely exhaust its possibilities, or completely deal with all its aspects. The scope of the subject is much wider, and some would include in it the investigation of the subnormal, including a study of the idiot, the imbecile, and the feeble-minded, with the addition, possibly, of some aspects of the supernormal, as illustrated, for example, in the data provided by religious mysticism and thought-transference. Moreover, the phenomena displayed in the behaviour of the mob-mind as distinguished from that of the group-mind may be justifiably regarded, perhaps, as data suitable for the attention of the student of abnormal processes of mind.

With regard to the latter point, Trotter, in his recently published book on *The Instincts of the Herd in Peace and War*, holds, in opposition to earlier writers, that the peculiarities of conduct which men display while participating in the activities of a crowd are quite normal in the biological sense, although they may be very different from the ordinary everyday behaviour of the separate individual members of whom the crowd is composed. The instinct of gregariousness, says Trotter, is sufficient to account for all that differentiates man as an individual from man as one of an active crowd. But while Trotter is quite right in protesting against the treatment of the qualities of the crowd-mind as abnormal in the sense which Le Bon<sup>7</sup> intends when he says of the crowd that "from the mere fact of their being assembled, there result certain new char-

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<sup>7</sup> Le Bon, *The Psychology of Crowds*, London, 1903.

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acteristics which are added to the racial characteristics," yet it is obvious that there may be serious derangement of the social mind, as there may be of the individual mind, and that such derangements do not serve the survival needs of the organism (whether individual or social) as one of a species in any real or proper sense. The more extravagant manifestations of uncontrolled public anxiety, hope, fear, or suspicion, expressed, for example, in such wild rumours as that about the legendary Russian army which nearly all of us believed to be passing through England en route for France in the autumn of 1914, in the "well-authenticated" tales during war-time of victories and defeats which have never occurred, in the slanders which are always on the wing regarding personages of exalted rank, in the more extreme fluctuations of the values of stocks and shares, and in sudden panics which arise at moments of both real and also apparent danger—surely all such phenomena as these are abnormal expressions of mind. It is difficult to discover a survival value in them, and they cannot be fully explained by the single normal factor of gregariousness. We shall therefore be obliged to admit that crowd psychology, on such grounds alone, is a not unimportant branch of the science of abnormal psychology, and accordingly give it due attention.

By way of digression, another view of what constitutes the normal when applied to conduct may be mentioned, since it is very widely held, and expresses well the popular point of view. It stands for the attempt to

classify psychological facts in terms of ethics. Thus McDougall, in his classic *Social Psychology*, suggests that the normal type of action among human beings is irrational action, and states that moral and rational action is abnormal. This recalls the famous distinction of Huxley between human morality and cosmic morality, and the same fallacy underlies both attempts at distinction. Cosmic morality and human morality cannot satisfactorily be placed in separate categories, and difference of category cannot psychologically be claimed for rational moral action and irrational immoral action, for both may be the expression of the same biologically normal tendency. It is normal on the part of the imperfectly developed child to prefer, in the cosmic manner, present satisfaction to future and more cultured enjoyment, but it is certainly not abnormal for the mature philosopher to take the opposite point of view.

We now come to the question of the inclusion or exclusion of the subnormal as a branch of the abnormal. It is not difficult to arrive at a conclusion, for although at first sight it might be said that in the case of marked defect of intelligence or of sensory experience there may be left practically nothing of a psychical nature worthy of attention—nothing abnormal, in effect, to study—yet it is certain that the absence of a class of psychic functions, as, for example, vision in the case of the blind, and hearing in the case of the deaf, or of a knowledge of the relations of numbers in the case of the idiot, does without doubt influence the

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functioning of the remaining factors with which each works in close association in the normal mind.

The factors left over present us, in fact, with naturally isolated data for study. In normal experience, for example, what we call *space*, and suppose to be the result of mental reaction to visual presentation, is in reality a fusion of the experience of sight, touch, and of other senses which it is very difficult to dissociate for the purposes of experiment. But there are individuals who are abnormal in this respect when compared to those whose senses are biologically complete. We may learn much, therefore, about the nature and possibilities of the development of our system of touch-space from the blind, and much about our system of visual-space from the deaf; just as from other data we may learn a great deal about the nature of the hearing faculty and its effect upon general mental efficiency from a consideration of the mental difference between the deaf and the blind, and from the same consideration much about the nature of the visual faculty and its effect upon the general efficiency of the mind. Similarly in watching the defective intellect at work we may see something of what happens in the normal mind but at a more halting and hesitating rate of movement.

It is difficult to say how far supernormal manifestations of consciousness should claim the attention of the abnormal psychologist. It is certainly his business, in seeking to discover the true limits of the normal, to examine patiently the experiences of mystics, the phenomena of religious conversion, of telepathy, of hyper-

æsthesia, and of the stranger types of control of bodily events by psychical processes, but many of these manifestations may indicate the presence of qualities of definite survival value, and therefore in the future come to be accepted as thoroughly normal.<sup>8</sup>

To conclude our short discussion. We may consider Abnormal Psychology to be the science which deals with those marked aberrations of the human mind, whether individual or social, and whether temporary or permanent, which do not make for well-being. It gathers and investigates all the possible cases of variations of excess or of defect in sensory and perceptual experience, variations of excess or of defect in attention and feeling, in memory and in speech; it studies the psychic effects of hypnosis, intoxication, and the use of drugs; it undertakes investigation into the mature of hysteria, somnambulism, the neuroses, and dreams; it observes and inquires into the nature of idiocy, imbecility, and insanity, the latter including dementia and depression, hallucinations, delusions, and obsessed states of mind.

As a working hypothesis, it is doubtful if the science will be able to discard the old view of the interdependence of a body and a mind which act and react upon each other, but if it is faced with the inevitable and has to do so, then it will still be obliged to cling to some form of psychophysical parallelism which allows the concept of psychical causation to be held, for it is one

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<sup>8</sup> There is implied here the view that genius is but a heightened and, perhaps, specialized expression of ability.

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of the results of the study of abnormal phenomena that the relation of cause and effect has been found to hold in the realm of the psychical as it has been found to hold in the realm of the physical. One difference between modern abnormal psychology and the psychology which preceded it lies in the fact that today the wisdom and advantage of assuming the possibility of psychic causation are more and more becoming a matter of common notice. We may say with the physiologist that an hallucination, for example, is due to the chronic irritation of a sensory tract in the brain substance, but in doing so we have not accounted in psychical terms for the form which the hallucination has assumed, nor have we explained why it should have assumed that particular form and no other; only a tactful research into the patient's past life and present difficulties will lay bare the predisposing conditions which will enable us to understand the *form* and the *significance* of the symptoms which constitute the hallucination.<sup>9</sup>

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<sup>9</sup> The reader is referred to Prof. McDougall's *Body and Mind*, Cambridge, 1912, for a fuller treatment of the relation of the mental to the physical.

## CHAPTER II

### THE CROWD AT SCHOOL: ITS CONTROL AND EDUCATION

#### § 1. The Mob-Mind and the Group-Mind

THE young teacher, fresh from the eager atmosphere of the training college, who for the first time confronts alone the children for whose school education he has been made responsible, is apt to feel that he is in the strange and perplexing presence of a something unique of human power and quality about which he has heard nothing or very little in the many psychology lectures prepared for him in anticipation of his life's career. He has, of course, learnt much about the individual nature of children, and may be able to form a tolerably good estimate of how much effort and attainment he ought to expect from each of his pupils under ordinary conditions of work, but once launched upon his full career as a teacher, he soon realizes with something of a shock of disappointment that, at first, ordinary conditions of work are very difficult to secure, and that the methods which he has so carefully schooled himself to employ for appealing to and reasoning with the individual child do not answer at all effectively or consistently when employed upon the child as one of a class. Consequently he is nonplussed, and in the ma-

jority of cases loses his normal optimism, and so comes in time to regard his duties as those of an educational drill-sergeant, forced to make the best of a difficult job, and to adopt methods and do things which he cannot altogether justify to himself by the approved standards of the training college.

He discovers, moreover, upon many occasions, that his scholars do not manifest that heterogeneity of behaviour, that variety of mood and activity, which one would perhaps naturally expect from a number of diversely gifted and differently reared children; there is often revealed in their behaviour, rather, an astonishing unanimity of will, or of ideas, or of emotion, which is most disquieting to him, and it is in his endeavour to understand the phenomena thus exhibited that he feels that he is "up against" something which was not adequately dealt with, if indeed mentioned at all, in the period of his preparatory training; he has, in fact, begun to experience the peculiarities of human conduct as it is expressed, not in the behaviour of single and isolated individuals, but in that of numbers of individuals who are in active sympathy with one another.

The explanation, then, of his initial non-success as a teacher often is that he is more or less ignorant of the elementary principles of the "psychology of crowds." He knows, well enough maybe, how to instruct with success the individual child, but as regards understanding the nature of a group of children accustomed to being in one another's company, he is in the position of the woodland traveller, who, according to

the paradox, "couldn't see the wood for the trees." The present-day teacher has, indeed, been trained to teach individuals, but under the conditions which are so widely prevalent in our schools he finds that before he can carry on with his task he must learn to control a crowd. For the indolent it is an easy passage of thought to the position that the sole duties of a teacher are concerned with the management of crowds; indeed, the word "discipline," to the average reader, has a meaning which shows how almost universal is this tendency on the part of the teacher who realizes the impossibility of instructing the individual child according to "proper" method in the face of the distractions caused through the influences set going by the class crowd-mind; the tendency, that is, to take the course of interpreting his duties as those of an educational drill-sergeant. Nevertheless, the wrongness of extreme views need not prevent us from seeing wisdom in the mean position between them. Let us admit that a knowledge of crowd psychology will be of great assistance to the teacher; for class-teaching has come to stay.

By the majority of writers upon the subject of the psychology of crowds, the characteristics displayed by persons who are actively occupied together have been assumed without question to be abnormal, and the considerations which have moved them to accept this conclusion have been chiefly these, namely, that men in crowds display in their common behaviour an impulsiveness, a credulity, and an excessive suggestibility—

in fact, a decided though temporary mental inferiority—which is apparently foreign to their normal natures, and very difficult to account for (seeing that such characteristics cannot be said to subserve the higher needs of the individual or of the species), unless upon the assumption that men in crowds become abnormally-minded either through the loss of many of their normal characters or the development of others in a very much exaggerated form. Such writers have usually restricted their attention to that type of crowd which may fitly be called a *mob*.

Le Bon<sup>1</sup> has shown how crowds may be deluded by catchwords, and victimized by vivid verbal illustrations of thought; Sighele<sup>2</sup> has pointed out that an emotion may sweep through a crowd irresistibly, with a strength altogether disproportionate to its ordinary manifestation in the normal life of people; Ruskin<sup>3</sup> has said of the crowd that “it thinks by infection, catching opinions like a cold”; Baldwin<sup>4</sup> regards the crowd as a temporary, *unorganized*, and ineffective thing, and therefore of inferior survival value; Christensen<sup>5</sup> says that the mind of the crowd is determined by the lowest common factors of the minds that compose it; and Graham Wallas<sup>6</sup> writes, “One may see a few thousand men in a large hall reach a stage approaching genuine patho-

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<sup>1</sup> *The Crowd* (English translation), London, 1903.

<sup>2</sup> *La Foule Criminelle*, Paris, 1901.

<sup>3</sup> *Sesame and Lilies*.

<sup>4</sup> *The Individual and Society*, Boston, 1911.

<sup>5</sup> *Politics and Crowd Morality*, London, 1915.

<sup>6</sup> *Human Nature in Politics*, London, 1908.

logical exaltation in the hands of a practised speaker." We may add that in nearly every such case the speeches which produce these wonderful effects are seldom able to retain their power when reduced to expression in the calm medium of common print.

It must be here remarked that, from the point of view of the psychologist, a crowd is not merely a chance assembly of persons who happen to be frequenting the same spot at the same time, just as we have them, for example, in the Strand at any hour of the day. We have more or less agreed to accept the term as covering such assemblies as have some common bond of thought or feeling or impulse among their individual members. *Number* is obviously a very important factor in the constitution of a crowd, but only in so far as it is able to inhibit individual thought. But whenever conversation of a free-and-easy kind is impossible, and consequently action and reaction of thought non-existent, even if there are only two or three people gathered together we have a crowd. In the case of conversation we are able to state our own views, we can question and otherwise interrupt our interlocutor, but immersed in a crowd we are no longer able to direct the stream of thought or, in fact, influence its progress in any way; that privilege is in the possession of the crowd-leader, and often we feel impelled, in a manner which we are unable to understand, to give ourselves over entirely to his control. A family or a class in school may become crowd-minded for the single simple reason that the most powerful personality, the father

or the teacher, inhibits, by the wealth or the vigour of his own thought and general mental vitality, the free expression and mental activity of his subordinates, who accordingly find that they have no need of and are, moreover, prevented from, developing any initiative of their own. Thus is often explainable the comparative poverty of the attainments of the children of exceptionally gifted parents, and because of the possibility of such a phenomenon in the classroom, some educationists are inclined to emphasize rather the disadvantages than the advantages of the possession of a strong unbalanced personality.<sup>7</sup>

In addition to the factor of number, however, there is present in the crowd an influence which tends positively, as number negatively, to produce uniformity of mental states : the influence which creates the possibility of a common purpose existing among the unit members of the whole, so constituting them an integral crowd in the true psychological sense. It will be obvious, therefore, that if unity of attitude, or of purpose, is the characteristic mark of the crowd-mind, then the term "crowd" must not be limited to the description of people who are gathered together in public meetings, since a common purpose may be produced by a common religious faith, a great national crisis, a common devotion to noble principles, or, indeed, a common interest in any sentiment or belief. Thus a crowd may be generated which consists of people who have never heard of one another, and who live, moreover, at great

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<sup>7</sup> On this subject the eugenists would probably agree otherwise.

distances from one another, yet who nevertheless may act in perfect unison and with the true characteristics of the crowd, as soon as an adequate stimulus presents itself. The traditions, the "Sittlichkeit," of a school have this effect upon the scholars within its walls, but many of the readers of a great newspaper are equally susceptible to crowd-suggestibility, though they never come together as do the scholars of a school; and often it will be found that such persons cannot bring themselves to read another paper which takes for granted an attitude and a philosophy which are opposed to their own.

We may accordingly grade crowds by the equality of the bond which integrates them. A crowd in which crude passion is the unifying principle is a *mob*, but one which has for its basis of solidarity an intelligently accepted purpose is a *group*, while a group which owns allegiance to an ideal and works for its realization is a *community*.

It is in the cause which tends to bring about this uniformity of passion, purpose or ideal among the unit members of a crowd that we must seek for the secret of the abnormalities indicated above, and closer investigation will confirm the opinion of the earlier writers upon the subject, that in the manifestations of the crowd-mind there are no new characteristics brought into existence, as Le Bon suggests, but rather, certain normal characteristics are on the one hand exaggerated, or, on the other hand, certain others are practically inhibited from functioning.

### § 2. Suggestibility, Sympathy and Imitation—(The Herd Instinct)

Tarde,<sup>8</sup> following Bagehot,<sup>9</sup> who may be said to have originated the modern study of the behaviour of crowds in a systematic manner, mentions imitation as being "the fundamental fact of social life," and all modern writers agree, adding that suggestibility, too, is a very important factor in social conduct. A little thought will reveal an intimate connection between these two factors and the existence of a third and equally important factor of kindred nature with them. If we consider mind under the well-known threefold aspect of cognition, affection, and conation, we shall recognize that suggestibility is a predisposition on the cognitive side to the awareness of an adequate stimulus; it represents the receptive aspect of the mental process, and its expression is reflected in the crowd by a striking homogeneity of perceptions among the individual members. We shall find, too, that there is always combined and correlated with this factor a tendency towards similarity of action, which is spoken of as the imitative tendency. But the affective elements of mental process are equally present whenever suggestibility and imitation are involved, and may become predominant in their turn. A similarity of feeling between the members of a crowd goes by the name of sympathy, and sympathy is the third factor referred to above. We may, perhaps arbitrarily, introduce the idea

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<sup>8</sup> *Social Laws*, New York, 1899.

<sup>9</sup> *Physics and Politics*, Int. Sci. Series (Vol. 2).

of a time order, and speak of a suggestion awakening a response in the suggestible nature of the crowd-mind, and kindling there a sympathy which expresses itself in the adoption of the purpose or the attitude of the person who originated the aforesaid suggestion. But this manner of speaking implies a separation of the whole mental process into distinct part-processes and stages, whereas it is more helpful and truer to emphasize the oneness of the total mental state in order to grasp its essential nature. The fundamental fact is that a single mental disposition, *viz.*, the gregarious instinct, simple or intellectualized, becomes dominant in the crowd-mind, and in that one disposition any of the three aspects mentioned above may, in accordance with the circumstances under which the crowd are gathered together, become more noticeably prominent than the others. We should, therefore, be careful to avoid that form of faculty psychology which would treat suggestibility, imitation, and sympathy as separate entities. While the classic writers upon the subject have mentioned some or all of these elements as characteristic of the crowd, it cannot be said that they have made clear the ground of unity (the gregarious instinct) underlying the apparently separately functioning factors.

We have, as yet, no satisfactory theory to account for the way in which these contagious feelings take hold of the unit minds of the crowd. The successful theory, which is a sadly needed one, will, when it is formulated, explain the spread of sympathy in terms of

the mental life, and will show the relation of cause and effect to exist there as it does in the physical world; physiological concepts cannot adequately illustrate the psychic nature of the phenomenon. It will show how, and attempt to explain why, sympathy spreads like the ripples upon the surface of a pond into which a stone has been thrown, irresistibly sweeping onwards in all directions, except where the stubborn will of an individual places itself like a rock against its progress.

The clue to the much-desired explanation would seem to lie in the fact that when we are with others who have the same feelings as ourselves we give them a fuller vent because we are more or less aware that no one will object to their exhibition; and they will be all the more pronounced when excited and re-excited through sympathy with our neighbours.

McDougall uses the electrical analogy of induction to illustrate the spread of sympathy through a group of people. He speaks of the "sympathetic induction of the emotions" in this connection. The analogy is worth nothing as an explanatory principle, however, since electrical induction sets up lines of force in the theatre of its activity of such a nature as tend to produce other currents, not of the same quality, but of an opposite quality compared to the inducing currents; that is, there is actually produced by induction a resistance to the change.

McDougall points out that this "sympathetic induction" of the emotions is displayed in the simplest but most unmistakable form by all gregarious animals.

"Sympathy of this kind is the cement which binds animal societies together, renders the actions of a group harmonious, and allows them to reap some of the prime advantages of social life in spite of a lack of intelligence."<sup>10</sup> By whatever method the spread of excitement takes place, it is beyond doubt that in the majority of cases it is rapid enough and powerful enough to break down effectually any opposing tendencies in the minds of the separate individuals of the group affected.

Man, like the lower animals, finds it pleasant to share in the warm and generous emotions of companionship with his fellows and shudders at the chilly prospect of living in lasting psychic isolation from them. To achieve this intimacy which he so greatly desires, he is willing at times to sacrifice his own personal welfare and even his most cherished ideals, and to accept the burdens, anxieties, and beliefs of others. But this tendency must not be allowed to become the sole principle of human conduct, since the result will be fatal to the progress both of the individual and of the group of which he is a member. The evolution of the species shows an increasing tendency on the part of intelligence towards supremacy over the instinctive factors as guides to conduct. Intelligence is superior in most ways to mere instinct—if there is such a thing, indeed, as the latter—for in spite of the Bergsonian thesis that instinct is infallible and all-wise in its discernment and in its operations, we have the support of the investiga-

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<sup>10</sup> *Social Psychology*, London, 1908.

tions of Dr. and Mrs. Peckham<sup>11</sup> and other students into the ways and life-purposes of insects when we say that instinct is but a rough-and-ready instrument which Nature has contrived to serve her ends until the construction of a better one should become possible.<sup>12</sup> This construction of a better one has been but slow and gradual, the instincts themselves showing gradations of quality and efficiency, and the task of replacing the more comparatively blind and blundering reactions has progressed but little, maybe. Up to the present the human reason represents nature's best effort and there is no doubt that slowly and surely it will supplant mere instinct in its claim to choose the goals of human endeavour, and eventually develop into an instrument, the "imaginative reason," which will contrive to unite the qualities of both reason and instinct at their best.

It is, therefore, clear that there are at present two distinct and frequently opposed tendencies to action present in the mind of every man by virtue of his varied heritage, represented by the tendency to suggestibility, sympathy, and imitation on the one hand, and by the tendency to reflection and deliberation on the other.

Obviously, it is essential, in the present stage of evolution, that neither tendency should wholly obliterate the other. Too much thought hampers decision: too little favours impetuosity. A community in which

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<sup>11</sup> *The Instincts and Habits of the Solitary Wasps*, Wisconsin, 1898.

<sup>12</sup> The reader who is interested in the nature of instinct should study the brilliant contributions of the late Dr. W. H. Rivers to this subject in *Instinct and the Unconscious*, Cambridge, 1920.

people did not respond to social suggestion readily and without reflection might find itself near extinction on many an occasion before it could rationally grasp its perilous position. Now, the fundamental method of every child's education in its early years is by imitative non-rational absorption of the thoughts, feelings, and actions of others. Speech does not wait for the understanding of the rules of grammar, or it would not develop at all. But, on the other hand, if a child depends always on the behaviour of others for its cues to conduct, it will make very little mental progress, and probably never display any very noticeable initiative or ingenuity, which are the criteria of all true intelligence. Some children, for example, who are encouraged to ask questions in early life, develop the habit of doing so to an alarming extent, so that they arrive at a state of never bothering to think out problems for themselves, knowing that an inquiry addressed to a fond parent will invariably save themselves the trouble of thought.

Baldwin is disinclined to accept the mob qualities as the typically social qualities, and argues strongly for the view that social conduct may take other and more normal forms—that crowds exhibit, indeed, a pattern of mentality that is pathological, just as individuals may exhibit the other extreme of abnormality in displaying anti-social tendencies of a marked type. The normal and healthy form of social conduct is, according to this view, expressed best in the intelligent co-operation of men and women for the achievement of ration-

ally conceived ends, and in the economical organization of activities necessary for such tasks. One cannot but feel that Baldwin is right in holding this view, though he is by no means well supported by other writers.<sup>13</sup> Titchener, however, says in his *Text-book of Psychology*, "The mob-consciousness stands to healthy social consciousness very much as dreaming to the ordinary waking life."

Whether it is necessary that school organization should be of such a nature that it involves the grouping—some would say *herding*—of large numbers of children into separate class-crowds, each under the control of a despot who may or may not be fashioned by nature to be a crowd-leader, is a matter for discussion. As schools are at present constituted, the scholars are undoubtedly massed into crowds of no particularly high type, and by the enforcement of external order and unnatural silence during the periods of work with the consequent inhibition of free discussion, the pupils become partakers more in the disadvantages, perhaps, than in the advantages of crowd-life.<sup>14</sup> It is, therefore, essential for the present-day teacher to master the principles of crowd psychology. It may well be argued, however, that the future development of the school should follow the lines of *normal* social development,

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<sup>13</sup> This now needs modification. Since the above was written we have had Dr. McDougall's book, *The Group Mind*, as a patient attempt to account for the higher types of crowd-mind.

<sup>14</sup> On the other hand, the well-known Dalton plan fails to take account of what is valuable in good class-teaching: Its constant provocation of thought and speech; its ever stimulating quality.

as Baldwin defines it, and that the school should become the centre for the achievement, in so far as it is possible, of intelligence and idealism, through self-government, through discussion and self-directed activities. But even should this devoutly-to-be-desired consummation arrive, the crowd-leader can never be eliminated.

Baldwin describes admirably the conflict between the critical and individual intelligence and the power of the influences set in operation by a clever crowd-leader. He writes: "One may sit in an auditorium, as the present writer has done, during an exciting political or religious harangue, and endeavour to keep himself cool and unresponsive. He will then be convinced that he himself, even when he sets himself to be rational, is still a creature whose social suggestibility goes deeper than his power of self-control. He feels, in spite of himself, and in the face of his great impatience with himself, the tide of social excitement rising within him, and the swelling of his bosom is evidence to him that there might be an orator altogether too moving for his resistance. He feels that his footing is his only so long as he is enough alone to keep his thinking processes unentangled in the social emotions that are being stirred up around him."<sup>15</sup>

Now, it is probable that suggestion, appealing to sympathy, and leading to imitation, is the only method of training among gregarious animals and uncivilized human beings. Experience gained through the methods of trial and error probably counts for very little;

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<sup>15</sup> *Social and Ethical Interpretations*, New York, 1897.

progress, in so far as there is any at all, is probably made almost wholly through the happy chance discoveries that are made.

The ready acceptance of suggestions need not depend, then, on any rational factors. Their appeal is through the associative memory to the emotions centred about the instincts favouring group-preservation. Since animals and savages live in conditions of extreme insecurity, and the struggle for existence is a very real one to them, it is consequently a matter of the utmost vital importance that they should be able to put two and two together very quickly, and react to significantly suggestive perceptual stimuli upon the spur of the moment, without waiting to weigh and consider the advantages and disadvantages of so doing. One may see, for example, a single bird in a flock, which are feeding peaceably, fly up suddenly. Instantly a suggestion that danger may be hovering near sweeps through the others, and they all as one immediately seek safety in flight.

We humans, too, have this tendency to take our cue for immediate action from others. Let one man in the front four of a battalion of soldiers on the march turn and gaze upward intently, as at a distant and interesting object in the heavens, and all who are behind him will feel impelled to do the same. In all moments of great emergency we revert to this primitive gregarious type of behaviour, but in moments of normal living we prefer to substitute, as we grow more and more intelligent, the power of critical reflection for the tendency to un-

discriminating, unthinking imitation, looking upon the latter as inferior in effectiveness and value for the realization of our consciously formed purposes. It may be said, indeed, that we are truly human in so far only as we are rational; to be suggestible to the point of losing our reflective powers is to be unworthy of the treasures of our social heritage. This is partly true, but it is truer to say that the highest type of mind will always combine the ability to foresee with other valuable but more emotional qualities.

We must therefore conclude that, beyond a certain limit, the readiness to receive suggestions, to vibrate in sympathy with others, and to act in imitation of others, are symptoms of abnormal mentality. In holding this view, we can at the same time agree with Trotter when he refuses to admit that there is anything in the behaviour of crowds which cannot be accounted for by reference to the factors which function in the ordinary conduct of single individuals.

It must also be quite apparent, for the sake of social and individual well-being, that there needs to be some kind of balance struck between the tendency to stand aloof as a cool and critical spectator viewing life as a superior from an eminence of moral and intellectual excellence, and the tendency to act without thought as one of a crowd. We cannot, as the Stoics and the Kantians dreamed it possible to do, root out the emotions from our breasts so that Reason may be able to hold sway without competition, for the emotions must be retained to supply the driving power in conduct.

Reason, on the other hand, must not desert her throne; she must continue to rule, harmonizing the warring passions, and holding fast to her supremacy when the clamour of instinct is loudest and most insistent. We teach the actor, the orator, and the preacher to keep steady control of their thoughts when in the face of crowds, and to think while the hypnotic stare of a large audience confronts them; it is clearly not less important to teach the young child to rely upon itself to form cool and just judgments when angry passions possess the minds of those around, and to distrust the tendency to accept the verdicts of numbers as necessarily being the verdicts of reason and truth. A normal amount of suggestibility must not be taken, however, as being an impediment and a foe to the educator; it may be regarded rather as an invaluable ally. In fact, just as we may say that the child who is not in any way inclined to imitate is unlikely to learn, so it may be said that the child who is not suggestible is not educable. Bérillon, in his work *L'Hypnotisme et l'orthopédie mentale*, writes with respect to the suggestibility of children:—

After making my clinical diagnosis, and questioning the child sympathetically, I ask him to look very attentively at a seat placed a certain distance off, at the back of the hall, and I make the following suggestion to him: "Look very closely at that chair; you will find that you cannot help being drawn toward it. You will be compelled to listen to my suggestion and obey, no matter what obstacle to its realization presents itself."

I then await the result of the experiment. At the end

of a short time (one or two minutes) one usually sees the child move towards the chair indicated, as if impelled by an irresistible force, whatever efforts are made to hold him back. That being so, I am able to declare safely that such a child is intelligent, tractable, easy to instruct and educate, and that he stands well in his class.

If the child remains immobile, and says that he feels no attraction towards the seat which is shown him, I then conclude from this negative result that he is poorly gifted from the intellectual and mental point of view, and that it will be easy to discover in him marked signs of degeneracy. The opinion of his teachers and parents always confirms this judgment.

Suggestibility, as it is understood above, may be thought to be equivalent to ready and unquestioning obedience merely. It is important, however, to note that suggestibility, in the psychological sense, must be taken as equivalent to the acceptance of commands and ideas with a feeling of conviction, independently of logically grounded reasons.

McDougall has given us in his *Social Psychology* a classification of the conditions of suggestibility, and those which he states are four in number: they are as follows:

1. Abnormal states of the brain, of which the relative dissociation obtaining in hysteria, hypnosis, normal sleep, and fatigue is the most important.
2. Deficiency of the knowledge or convictions relating to the topic in regard to which suggestion is made, and imperfect organisation of knowledge.

3. The imperative character of the source from which the suggested proposition is communicated.
4. Peculiarities of the character and native disposition of the subject.

We should be inclined to add another condition, namely,

5. The acceptance by large numbers already of the suggestion which is being propagated.<sup>16</sup>

McDougall continues :

Of course, the first need not engage our attention, as it has but little part in normal social life. The operation of the other three factors may be illustrated by an example. Suppose a man of wide scientific culture to be confronted with the proposition that the bodies of the dead will one day rise from their graves to live a new life. He does not accept it because he knows that bodies buried in graves undergo rapid and complete decomposition, and because the acceptance of the proposition would involve a shattering of the whole of his strongly and systematically organised knowledge of natural processes. But the same proposition may be accepted readily by a child or a savage, for lack of any system of critical belief and knowledge that would conflict with it. Such persons may accept almost any extravagant proposition with primitive credulity. But for the great majority of civilised adults of little culture, the acceptance or rejection of the proposition will depend upon the third and fourth of the conditions enumerated above. Even a young child may re-

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<sup>16</sup> This condition is now recognized in McDougall's later book, *The Group Mind*, Cambridge, 1920.

ject such a proposition with scorn if it is made to him by one of his fellows, but if the statement is solemnly affirmed by a recognised and honoured teacher, supported by all the prestige of an ancient and powerful Church, not only children and savages, but most civilised adults will accept it, in spite of a certain opposition offered by other beliefs and knowledge that they may possess. Suggestion which is mainly dependent for its success upon this condition may be called prestige suggestion.

It will be observed that persons who are in possession of the state of mind referred to in McDougall's second, third, and fourth categories are crowd-minded, for the critical sense is entirely absent, or prevented entirely from functioning, and the association of ideas is strictly limited, a "narrowing of consciousness" being effected which prevents ideas other than those suggested, or those which are not incompatible with the suggestion, occupying the mind.

### § 3. Crowd-Management

From one point of view it might very well be maintained that the fundamental task of the educator is the inculcation and the fixation of useful habits, worthy prejudices about conduct, and sincere attitudes towards the problems of life by means of appropriate suggestions which appeal to group-feeling. There are forms of behaviour which it is imperatively necessary that the child should adopt early in life, both for his own welfare and for the welfare of others. If these types of conduct are to become permanently fixed, and so func-

tion as habits, then they must be implanted at all costs before rival tendencies of thought, feeling, and action get the chance of becoming established through repetition. If it is impossible for the socially grounded value of these habits to be rationally explained and understood, on account of the immaturity of the child to whom they are suggested for adoption, then prestige-suggestion, both of personality and, as we would add, of numbers, must be relied upon to effect what as yet the reason is incapable of managing. In this way the child must be taught, as he usually has been taught, the elementary habits of decency, unselfishness, and self-control. As the twig is bent, so will it grow. In the home, for instance, if the example of numbers is unavailable, we must rely upon the personality prestige of the adult members of the family and upon unwearying repetition to associate in the child's mind suitable ideas with the various tendencies towards action. Thus we must associate the idea of naughtiness with the impulses to throw food about, to cry when put to bed, to be spiteful, etc., and associate the idea of goodness with the impulses to share its sweets and its toys with others, to obey quickly and cheerfully, etc. "We require," said Plato, "to be trained from our earliest years to feel pleasure and pain at the right things." Often only by the adoption of the methods of the leader of crowds is it possible to secure this, and to be successful we adults must ourselves be the pattern and ideal of perfect conduct, since the imitative tendency in the young normal child is so strong. There is a need for

great tact in this direction, and for consistency, since the indirect suggestion of actions will often be found to accomplish more than the direct suggestion of words. It is also possible, of course, to help the child in many cases to take a scientific and rational interest in his own conduct, but often enough this cannot effect at first any powerful influence on his behaviour.

Some parents frequently talk loudly in the presence of a child of its prettiness or cleverness, and such remarks have a suggestive effect which is perhaps not anticipated, but which is, nevertheless, powerful to an unsuspected degree and productive of unfortunate results in the shape of snobbish self-conceit, self-satisfaction, and vanity. Parents who, on the other hand, wish to see their children develop along the lines of diligence and self-reliance, will dwell repeatedly but tactfully, not upon their children's cleverness, but upon the improvements in the acquisition of skill and knowledge which the latter are exhibiting, though they will not fail to suggest that the progress is because of, and in proportion to, the efforts which the latter are making to persist worthily in the tasks they have taken up. There is only one effective way of justifying the suggestion that one is persistent and not to be deterred by difficulties, namely by acting the part, and children are as suggestible in this direction as in other directions.

Even when the reason has developed to that point where it is capable of functioning by itself effectually, it may, nevertheless, be an economy of time and patience on the part both of the educator and of the child

to fix habits of thought, feeling, and action by means of the prestige examples of personality and of numbers, rather than by the adoption of a purely rational method. How well do the politicians, the journalists, and the commercial advertisers know this fact. In order to get an individual to set a certain value upon a given idea, it is only necessary to persuade him that thousands of others, including personages of high rank and great intelligence, hold this idea, and regard it as a worthy one.

Children who display normally no trace of desire to attend lectures of an educational nature outside school-hours may often be led to exhibit the utmost eagerness to secure tickets of admission if they are persuaded that the majority of their school-fellows are bursting with enthusiasm to attend. "Nothing succeeds like success." Tarde, in his *Social Laws*, speaks of this principle as the principle of "reinforced tendencies," and points out that tendencies in the human mind which may in themselves be too weak to pass off into action on their own account, somehow gain in vigour and decision when they find themselves in the theatre of activity with thousands of other similar tendencies. Thus we may have a passing impulse to go to a picture gallery to see certain much discussed paintings, but in all probability an interesting chat or a game of billiards will be quite sufficient to nullify the impulse, and yet, should we find ourselves in the company of a number of persons all of whom were possessed of this same impulse, then before we were well aware of that fact we might find ourselves making active preparations to carry out our in-

tention. Our weak impulse would have gathered strength to itself; its tendency to action would have been "reinforced."<sup>17</sup>

A further example may be quoted. In many parts of a large city there may be seen, especially upon school holidays and upon Saturdays, long queues of children lined up outside the local cinema halls, hours before the doors are due to be open for admission. The cinema without a doubt appeals to the child by reason of its intrinsic interests, but the prestige suggestion of numbers plays its part, too. The visible proof which stares the child in the face that two or three hundred other children are anxious to be admitted to the show is sufficient of an influence to move a child who might otherwise never bother his head about "the pictures" to want to go to see them, too. The successful teacher—whether viewed as instructor or inspirer—who wishes, therefore, to impose a new project upon the attention of his scholars, will understand and be able to use when necessary the art of crowd-suggestion; he will know how to persuade each scholar separately that there must be no delay on his part to decide to act and so escape exclusion, as all the other children will probably press to be allowed to take their part in the scheme about to be set afoot. Visual aids in the shape of novel charts, diagrams, and pictures, the popularization of phrases that appeal to the fancy, and other similar devices, will

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<sup>17</sup> As we have suggested elsewhere, this *reinforcement* probably consists in the removal of inhibitions which the conscious self may have imposed.

be used if necessary by such a teacher, and such means will always bring success to the teacher's endeavours. He will strive always to enlist the support of the irrational factors in whatever he does, whether he wishes to impose a new rule of conduct upon the scholars or whether he wishes to drive in with the quality of retentiveness certain principles and facts as a basis for study; and more especially if he feels that the support of reason will be of little use in itself, and that the appeal to reason alone will not effect his purpose. Obviously, the support of the reason is a very valuable thing to aim at securing, but unconscious inference will serve the teacher's purpose very well while the fixation process is in operation, and during this period the attention of the scholars will be deliberately narrowed down so that no other interests will be able to compete on equal terms with the thought or habit to be suggested. There are, however, serious dangers ahead of the teacher who does not fully understand the nature of crowd-suggestion, as we shall see.

It is now becoming a matter of common knowledge that the success of the journalist depends not upon the quality or soundness of his ideas, but upon his ability to form crowds which have a consciousness narrowed down to the range of a few interests—crowds which are homogeneous with respect to their ideas upon certain public questions and beliefs. Day after day, with unceasing purpose, the journalist works away at his task of injecting ideas into the body politic, using the

headlines in his papers and the announcements on his newsbills in the furtherance of his object. It is his privilege to select whatsoever items of news or opinion he pleases for big type, and therefore more impressive announcement; other items of news which may be equally important, but which do not assist him in his purpose, can be relegated to the more obscure corners and the back pages of his journal, or, if necessary, omitted altogether.

In the recent war when the "sink-all" submarine policy of the Germans was in full swing, the newspapers were daily calling the attention of their readers to it by publishing the names and numbers of vessels which had been sunk on their way to this country. Now, it is manifestly unwise and, indeed, futile for the crowd-leader to arrest public attention and hold it unless he has an outlet in view for the pent-up and constantly accumulating feeling to discharge itself; so that it is not surprising that the English Government decided to prohibit the daily announcement of shipping losses in favour of a short weekly statement, which, it no doubt hoped, would show a gradual but certain decrease as time went on, in the numbers of the ships that were being sunk.

With untiring insistence, and by the daily attraction of the public attention through the use of smart catch-phrases which sum up his point of view in an effective manner, the journalist perseveres in his work—the culture of fungoid ideas; he knows that his phrases will stick in the popular mind, and when they become fa-

miliar enough there, will in most cases function quite as usefully, from his point of view, as consciously formed thoughts. Graham Wallas in this connection writes: "The contents bills of our newspapers, which were originally short and pithy, merely from considerations of space, have developed in a way which threatens to turn our streets (like the advertisement pages of an American magazine) into a psychological laboratory for the unconscious production of permanent associations." Probably very few persons in this country were able to resist the force of the suggestion, continually put forward by some of our big newspapers, and shouted at them daily from a hundred street corners, to the effect that the Prime Minister of England during the early part of the war was the worst conceivable type of the spirit of "wait and see," and that he would wait and see, no matter how tragic the consequences might be. It may or may not have been true, but among the thousands of people who accepted the suggestion, but a very small number would be able to say that their opinion was based upon the solid results of impartial inquiry and reasoning.

We have also had an interesting example of successful social suggestion of a slightly different kind during the past few years in the systematic and subtle ridicule of a certain type of motor-car. It has been propagated in an ingenious manner, and has depended upon the human love of humour for its success. A large number of "funny" stories mysteriously and suddenly began to appear in the popular periodicals. They may be

illustrated by the joke about the squirrel which was said to have been given away by the car makers to all their customers, its use being that it could be trained to run behind the car and pick up the falling "nuts." The origin of all these stories is probably now beyond our ken, but their effect has been to influence unthinking persons into the acceptance of the view that the said car is quite unreliable. Rational investigation may or may not uphold this view, but our point is that this is quite another matter.

How often, too, is the greatness of a well-known man invoked as a reason for the acceptance of every kind of belief which he may happen to hold, or for the soundness and genuineness of any business undertaking which he has been persuaded to support. The company promoter feels that his success will be assured if he can get a well-known and respected man to lend him support in launching his new venture. The advertising quack seizes every opportunity to announce to a gullible public that Sir Strenuous Strongarm has used his nerve tonic, or that Lady Leisure has written to thank him for the lip-salve which he has been good enough to send her. Propagandists hurl the names of the famous at the heads of the credulous, vegetarians naming John the Baptist and notable athletes as true believers, Socialists suggesting that all the rising young novelists are in sympathy with their point of view, temperance fanatics quoting the opinions of eminent doctors and scientists upon alcohol as being, naturally, unquestionable. Again, the fact that royalty does this

or never does that is sufficient reason for many persons why they should imitate so august an example. The crowd seems instinctively to feel after a leader, and preferably one who is able to display the qualities of initiative, foresight, and conviction which it lacks. From the authentic crowd-leader the crowd accepts ideas as the normal child accepts milk from its mother.

The teacher should be the natural crowd-leader of every class which he has to instruct, and upon the occasions when he cannot act in this capacity he should be skilful enough to impregnate with his own ideas and wishes those scholars who have personality-prestige among the others. He may have little success as a teacher unless he is able to recommend good habits and ideas for the acceptance of his scholars successfully enough by the mere fact of his possessing them himself, and consequently without the need for lengthy explanation of their reasonableness; but whereas the journalist and the mob-orator too often produce atrophy of thought and conscience in their audiences, the teacher will imitate them only in so far as is advisable, the slumbering reason always being reverenced.

It will be objected by the disciples of pure reason that it is a thoroughly vicious principle to exploit the suggestible nature of the young child in the manner indicated above, that the methods of the commercial adventurer and the professional quack should never be employed in the education of school-children. They wish their children to be "led by the Lord," not "lured

by the loudest throat." Alas! the life of man is short, and the school days of the child are often past long before reason has begun to spread her wings for flight, and something must be done while the occasion is ripe to fix healthy habits, prejudices, and attitudes. The educator who trades upon the suggestibility of the immature child is justified if his aim is to elevate and energize. He does not propose to work in opposition to the child's latent rationality. The sanction of the use of crowd-suggestion is in its ennobling of the individual, and its application does not necessarily mean that the reason is left antagonized, undeveloped, and altogether torpid. Indeed, we hope to show that it is only possible to raise up reason to its full stature by the employment of the methods of the crowd-leader. In appealing to the child's suggestibility, the educator is merely following the example of Nature, and making use of the instrument already to hand until a superior one will be able to function unaided in its place, for cannot the mind grasp truth very often in advance of the intellect?

But it may be remarked in passing that the worship of pure reason may be carried to extremes. All those cranks among us who oppose the continuance of the institutions which humanity through countless ages of experience has established and confirmed—as, for example, monogamous marriage, the forms of accepted morality, private property, religion, etc.—do so in the name of Reason. Divorced from sympathy, the reason may become violently anarchistic and a serious menace

to society. After all, one cannot sum up the nature of things in a formula, or make progress accord with the nature of the syllogism.

Certainly it is the duty of the educator (and rationalists of the most extreme type will agree) to raise the level of the expression of the crowd-consciousness of his class. It has been pointed out by many authorities that although crowds display, as a rule, a decided mental inferiority, their mentality need not always be, in the phrase quoted from Christensen, "equal to the lowest common factor of the individual minds that compose them"—they need not always be possessed of the spirit of the Gadarene swine—for on occasion, under the guidance of an orator of noble principles, who is able to inspire his hearers with his own enthusiasm for worthy causes, they may reach without difficulty the topmost heights of idealism. Appeals to the sentiments of honour and patriotism are then peculiarly potent and effectual. At the beginning of the recent war the British nation became possessed of a single mind conscious of a great mission, mainly through the speeches and actions of her leaders, and this ideal attitude lasted for some considerable time.

Plutarch tells us how Themistocles could raise the Athenian citizens to a pitch above themselves, and weld them, by the fire and the sincerity of his eloquence, into an integral community with a single dominating ideal interest. Before the projected invasion of Attica by the Persians, Themistocles had scented the approaching danger, and he firmly fixed in

the Greek mind, by the power of suggestion, the idea that the Greeks were the bearers of the flag of culture and civilization in the world, that they would be attacked by the Persian hosts, and that the gods were looking to Greece to keep the flag of humanity unsullied, and would help them if their peril became too great. He was able to persuade the people that they ought to sacrifice the legitimate claims which they possessed to the revenues of the silver mines of Laurium, and with the funds thus obtained for the use of the State, they set to work to fit out the fleet which at the critical hour was the means of bringing about the defeat of Xerxes at Salamis. The projected invasion was thereby rendered impossible, but had it succeeded the whole course of history would conceivably have been different. There can be no doubt that Themistocles was guided in his task by an unerring insight into the social nature of man, and a subtle understanding of how by means of appropriate suggestions he might control the ebb and flow of human resolution. He was justified both by the circumstances and by the results. Had he chosen to work by the aid of the glimmer of the little torch of reason, slowly and laboriously, he would have achieved but little, and that too late, probably. Though steady and enduring, the light of the reason cannot compare with the highly inflammable material of the emotions for temporarily lighting up the soul of man and for giving him warmth of conviction and courage.

There are still several points of interest to be noted

in the methods employed by crowd-leaders to work up the heterogeneous and fickle mob into a homogeneous unity vibrating to the thrill of a single dominating purpose. Music has been extensively used as an agent for producing unity. It is the most social of the arts. Just as reading in the quiet of the study, away from disturbing influences of social passions, may produce a mind which is highly immune from the dangers of contagious crowd-suggestion, so, on the other hand, is the acquisition of skill in musical expression and the development of appreciation apt to produce minds characterized by great fluidity of thought and feeling. The great evangelists of the past and present have made a wonderful use of the unifying power of music, and the use made of the military band will serve to show how music is able to keep the spirit intact and unitary in a body of men long after they are thoroughly fatigued by the exertions of a forced march. The politician has been quick to take over this hitherto undisputed possession of the Churches and the army, and very few big political meetings take place in our midst today without the preliminary singing of songs and choruses by the people who are gathered together to hear the orator of the occasion. These songs and choruses are chosen and used to produce a suitable condition of susceptibility, and after they have performed their work, the meeting is sufficiently tuned up for the crowd-leader's manipulation.

Music has not been employed in the schools to the

extent to which it might be useful as an agent capable of evoking the superconsciousness which we call "solidarity," "fellowship," "idealism." The attention of the teacher and of the scholar has been focussed too much in the past upon the task of developing musical knowledge and technique, and the use of the "subject" for better purposes has been overlooked entirely. It has been noticed by teachers and inspectors that where there is no frequent general assembly of all the school for music or devotional purposes there is a characteristic lack of something vital and purposeful in the school atmosphere. Whenever possible the schoolmaster, therefore, should gather the school together in one place where they can join in the singing of songs and the recitation of passages of devotional literature and prayers, without any undue regard for the minutiae of articulation. The purpose should not so much be instruction at such times as the bringing to birth, or the keeping vigorously alive when born, of the unique superconsciousness of the school. On these occasions the school is a true but high type of crowd, and the schoolmaster the crowd-compeller. Armed with the powers of good and evil on these occasions, he may plant in the sensitive soul of the child's nature seeds of great force and vitality which will yield an abundant harvest in the years to come.<sup>18</sup>

It has been noticed, too, that sights and sounds often affect the mind with more result than mere

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<sup>18</sup> In this connection it may be interesting to read *British Music*, a report of the Board of Education, England, 6d.

words. Banners, processions, and other visible symbols have ever been the magic means employed by every Church to impress people in all parts of the earth with the inexpressible wonder and magnificence of the faith so advertised. Many educated persons, still, are more powerfully influenced in favour of a cause by the voice of a monster demonstration than by tomes of perfectly irrefutable argument. Persons, for example, who treated the English pre-war woman suffrage movement as a mere passing symptom of unrest were decidedly impressed to the point of reconsidering their opinions by the spectacle of a brilliantly organized procession of women through the streets of London one Saturday afternoon in the summer of 1911. The schoolmaster will accordingly take this lesson to heart; he will organize his own demonstrations, commemoration days, social gatherings, school honours celebrations, and other festivals; colour, music, and excitement, and the happy hum of human voices, all pressed into the service of one purpose, may persuade his young scholars into the conviction, in a way that ordinary lessons can never hope to do, that virtue, honour, fellowship, and industry have a greatness of their own, worthy of their deep veneration, that the petty aims of the self are insignificant in comparison, and that the highest ideals are not utterly beyond their reach.

After all, why should the use of social suggestion be the monopoly of the priest, the politician, the physician, and the professional quack? Why may not the educator as well as the psychoanalyst and the hypnotist

make therapeutic and inspirational use of suggestion? Indeed, the educator's aim in the management of the suggestible pupil is as noble as that of the physician, and incomparably nobler than that of the advertising politician or the professional quack. He does not aim at creating taboos, at a deepening or a perpetuating of the suggestibility of his scholars; he hopes, indeed, to be able to point out to them when the time is ripe the *dangers* of suggestibility, and it will be his privilege and his joy to develop in the growing mind of the child a rational process which will effectually scrutinize the claims to validity of every suggestion that enters the mind in normal circumstances.

It has already been implied that the successful teacher should combine in his person all the qualities of a high-minded crowd-leader. It will perhaps be necessary to set them out in more detail. There are two types of successful crowd-leaders: they are the crowd-exponent and the crowd-compeller. The former gives the crowd what they are hungering after, they know not why; the latter gives them what they need. The former rides into power by voicing the appetites and moods of his followers, he tickles their vanities and flatters their weaknesses: the latter dominates the crowd and bends it to his will. The educator<sup>19</sup> should manifestly be of the crowd-compelling type, but he will also, in the manner of the crowd-exponent, be sensitive to the passage of every emotion through the

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<sup>19</sup> The statesman's task, it has been said, is but the educator's task writ large.

minds of his scholars. He will endeavour, however, to canalize the ephemeral desires, suddenly aroused emotions, and passing fancies, into useful courses, and this, without obliterating individual thought or desire for self-mastery. While the crowd-leader leads his flock by the nose, he will lead his class by the hand.

It may be an economy of space to sum up in a brief manner the attributes and virtues of the successful crowd-educator and apply them to classroom practice. Some of these have already been indicated or implied.

i. *The teacher must possess the qualities which his scholars, by reason of their immaturity, have not had the opportunity of developing, namely, foresight and wide experience.*

He must be able to warn his scholars of the certain results which will follow given courses of action, and must be capable of making vivid public examples of those of his pupils who are unwise enough to pay no heed to his warning, and so come to grief. He will never punish them, however, in a manner which is calculated to arouse the pity of others, for culprits should always be made to experience the pain of isolation from the sympathy of their fellows. The greatest mistake which the inexperienced and young teacher makes is to punish a group of children simultaneously, since by such an act he divorces himself from the sympathy of a large number of his scholars at the same moment, and at the same moment, too, he creates a bond of sympathetic unity between the wrong-doers

which may be firmer than his own authority; rather, he should seek to isolate the wrong-doers, one or two at a time, from the support of their fellows, and enlist that support on his own behalf.

His knowledge of his subjects must, of course, be thorough, but his general experience must be wide. He must be able to see the subjects of the school curriculum in relation to the interests of human life as a whole. In addition, he must be able to talk fluently upon topics of general concern as "an authentic man," and so link up school interests with the practical affairs of life. Knowledge will not then be despised as it is despised so freely today, because it will no longer be mere devitalizing information; it will be regarded, rather as a weapon for the advancement of man's efforts to better himself and the condition of his fellow-workers in the cause of civilization, and in this cause it will be the teacher's aim to enlist his pupils as ready and willing recruits.

## *2. The teacher must have an impressive personality.*

His prestige must be unquestionable. Ideas, as we have already seen, do not gain currency by virtue of their intrinsic ethical worth. Whether they are right or wrong, good or evil, just or unjust, matters not for circulation purposes. The mark of the successful teacher is his power of stimulating and maintaining the currency of vital ideas.

Self-control and a certain amount of reserve are naturally important factors in the constitution of an impressive personality. But the main thing is to be-

lieve in the value of a subject, purpose or cause with such force as to persuade others that you think yourself of small account in comparison.

*3. The teacher must be persistent and systematic.*

Keatinge says in his book, *Suggestion in Education*, that the teacher needs "the general technique that for want of a better name may be called business habits in the classroom. The performance of routine work in a quiet professional manner is not showy; punctuality of appearance, regularity with lists of marks, rigidity in setting and demanding impositions, definiteness in the demand for home-work, these things are but the drab-coloured background of efficiency . . . and it may be doubted if a teacher who neglects them will in the long run be suggestive, no matter what his gifts may be."

The importance of systematic drill in habit formation has been fully emphasized by all educational writers since the days of William James, who so succinctly and forcibly summed up the conditions of successful habit formation. Consequently, in the schools there have grown up various habit-forming practices, such as daily tooth-cleaning exercise, handkerchief drill, and the like, the aim of which has often been misunderstood and wrongly stated. It is not so much to teach the reasonableness of hygiene as to fix by crowd-suggestion and unconscious association the tendency to the performance of desirable habits, on the one hand, with the ready recognition, on the other hand, of situations which provide opportunities for their

operation. In all matters of health habits are better than knowledge.

As an example of habit formation issuing in real thought, the following instance may serve. An excellent teacher of electricity, whose classes the writer attended, used to focus the attention of his students upon matters of difficulty by the employment of catch phrases which summed up the difficulty "in a nutshell." But they summed up the difficulty without solving it: they simply challenged the attention with a problem, and through constant repetition created the habit of uneasiness in its presence which could be got rid of in only one way, namely, by a satisfactory solution of the difficulty. The circulation of the catch-phrase in the class served, in Tarde's words, to "reinforce the desire" for a solution. One of the difficulties to students of the electric arc-lamp is connected with the inversely varying relations between the voltage and the amperage of the current across the arc when a steady resistance is being employed. Before we could solve that difficulty we had to see that it really was a difficulty, and during this preparatory period the invariable daily greeting of our teacher was, "Good-morning, why do the volts rise?"

"What volts?" asked the bewildered student who had hitherto been ignorant of the whole matter, and his curiosity was at once aroused. Every succeeding repetition of the phrase brought the matter once again into his consciousness, and after a little while, when the whole class saw the difficulty, the teacher explained it

to us in circumstances that ensured the permanence of the explanation.

4. *The teacher must respect the dignity of his scholars.*

He must be prepared to learn from the methods employed by the crowd-exponent, or, as we sometimes call him, the demagogue. He must not treat his pupils as unintelligent and hopeless babes, but act in their presence upon the assumption that they have the qualities and virtues of responsible adults. He must even let it appear that he regards them as rational beings. They will respond adequately to whatever suggestion is made to them. Called repeatedly by names which suggest that they are imbeciles, they will lose the hope of ever being able to justify better names; treated as sensible and potentially industrious grown-ups, they will endeavour to act the part to the best of their ability.

5. *The teacher must be able to energize his scholars.*

He must seek to exalt, never to depress. He must ever be a fount of good-humour, not a well of cynicism and despair. He will take as his model in this connection the Friend of sinners, rather than that austere and stern prophet who went about suggesting that all men were thoroughly wicked, and calling upon them to repent because the day of doom was at hand. It is interesting to note that during the recent English investigations into the fatigue of munition workers, the daily output of one of the factories under observation showed singular variations. Strange decreases in the amount of fatigue recorded occurred on certain

days. These decreases remained unexplainable, until it was eventually noticed that they coincided with the absence of the managing foreman of the works. Is it necessary to add that he was a man of the nagging and depressing type, whose very presence was a source of irritation and mind wastage? The way of efficiency is indeed the way, not of strife and scourging, but of gentleness and joy. Let us beware of the "stimulation" which devitalizes.

6. *The teacher must thoroughly understand the conditions, dangers, and limits of the operation of the factor of suggestibility.*

It is at this stage unnecessary to state more fully such conditions and limits. Be it sufficient to say that the educator will not attempt the impossible: he will know when to refrain from attempting suggestion. He will feel instinctively when the class is not likely to be in sympathy with him, and if such a state of things does at any time arise, as probably it will, he must know how to wait patiently for the opportunity of turning the occasion to happy account.

In spite of all that Mons. Emil Coué advocates, we hold it definitely certain that no man can persuade himself into a sane and healthy condition by methods that fail to commend themselves to his common sense. In conclusion, one would like to mention a view which is widely held, and practically implied by Keatinge in the book from which we have already quoted, to the effect that a certain quality of inscrutability combined with aloofness is a condition of personal prestige of

great value to the educator. When we see that a man of excellent character and attainments may fail to influence a class favourably, merely because he is so alien from it in every respect, we should hesitate to advocate the erection of still further barriers to the possibility of intimacy. Teacher and child must to a certain extent live in close sympathy with one another if harmony of aims and ideas is to result.

Enough has already been said about the employment of the non-rational factors of sympathy, suggestibility, and imitation as substitutes for the reason. It should also be borne in mind that some children will be found to exhibit behaviour of an opposite kind, and defy all attempts at making them copy the examples that may be placed before them. The treatment of such children will be reserved for consideration in the fourth chapter.

The time has now arrived, let us suppose, for which the educator has been waiting—indeed, it is his duty to anticipate it, if he can—when reason shall have developed into a partially effective instrument, so that the child may be considered a normal human being, able to distinguish between right and wrong and between good and evil, without the aid of his superiors; when he will no longer accept unquestioningly the judgments of those about him in place of his own; when numbers will no longer speak with the voice of infallible authority, or catch-phrases with the ring of sincerity and truth; so that he will not, for example, assume that if his solutions to mathematical problems

coincide with those of others, they are therefore correct; when he will realize that ideas may be strong, bright, and permanent, yet nevertheless false; dim, weak, and transitory, yet nevertheless true; when, indeed, the age of unremitting servitude to convention and arbitrary rule must cease, and the age of reason and self-direction begin.

It is extremely doubtful if such a time will arrive during the primary-school career under present conditions, but obviously, a school system which does not at least furnish a link between the age of credulity and the age of rational choice must be condemned as failing in one of its fundamental requirements.

Will a knowledge of the principles of crowd psychology help the teacher in his attempt to develop the power of the reason? We venture to think it will, and should be inclined to say that it is by the application of the aforesaid principles alone that any substantial progress will be made in the attempt. The mere giving of formal lessons in logical method, followed by private exercises to be worked by the scholars, will effect very little in comparison.

By his personal example, in the manner of the crowd-leader, the educator will set the fashion of impartiality, "assert the dignity of speculation," and popularize the habit of rigid scrutiny of the facts which are to be used in the classroom, and he will find several subjects in the curriculum of great service in this connection. Mathematics, for example, provides invaluable opportunities for the development of the habit of scrutiniz-

ing data. But it must be understood that the teacher is to make it the dominating conviction in the minds of his scholars that logical inference of just so much as is warranted and no more, combined with steady, sure and orderly procedure, is the very soul of mathematics, and an ideal worthy of cultivation for its own sake. This conception will probably only become vitalized by the use on the part of the teacher of crowd-suggestion. It is the fashion to decry the formal training of the mind, and to assert that there is no transfer of what is gained through the application of ability in one subject to service in other subjects, and that when such a transfer apparently takes place it is because common elements are affected in the subjects concerned, and that the gain is through them. Surely, then, consciously formed ideals may be common elements of this kind; indeed, the teacher who aimed, as some of the experimenters have done, for example, at the development of neatness in the setting out of arithmetical solutions, without making neatness an ideal thing in itself, would be a very poor teacher. Thus, the reason will not, if our view is the true one, develop to its full stature merely through the exercises that are provided for it, but mainly through the kindling of the ideal of rational method in the minds of the pupils; and the kindling of ideals is the special task of the crowd-leader.

The natural sciences should, if taught properly, free the minds of their students from the incubus of fear and superstition, when in the presence of the inscruti-

table. Boys and girls should emerge from a scientific course with a profound conviction that law and order hold undisputed sway in every corner of the universe, and they should have gained that habit of expectancy which anticipates the presence of system in all phenomena. This result of science-teaching is, we venture to think, quite as important as that which the practical man of affairs demands, namely, a wealth of facts of a useful nature, and it will follow no mere study of first principles. It is something to be "caught" from an enthusiastic and capable teacher.

History may be made to yield rational principles by which the student will be enabled to understand the present as springing naturally from the past in accordance with the laws of cause and effect. It will furnish him with perspectives whereby he may view correctly institutions and customs in the light of their origins. But here, again, it is mere folly to expect that this result will ensue from the study of given facts. The desire to find reason is the parent of reason, and this is true in the sphere of history, as it is in all other departments of thought, and desires are spread by contagion. We must assert, too, that the best fruits of the study of the past are the result of the influence of the characters of the great crowd-leaders of history, as they appeal to the eager minds of the children who learn about them.<sup>20</sup>

Literature and such biography will prove extremely

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<sup>20</sup> An invaluable handbook in this connection is *The New Calendar of Great Men*, Macmillan & Co.

useful to the teacher in his endeavour to quicken the desires just referred to, and will provide in a crystallized form antidotes against the possibility of such irrational crowd-contagion as is fatal to the sway of reason. Nothing is more efficacious in promoting immunity from this kind of contagion than a keen appreciation of the great men and women portrayed for us in the pages of books.

Above all, the educator will provide outlets for the spontaneous group activities of his scholars, and will aim at the substitution of self-discipline and group-discipline for mob-discipline. A bright-eyed independence will mark the demeanour of his scholars, and this will herald the coming of self-reliance more surely than placid obedience to authority, combined with logic and moral talks. Already we see schools arising where the realization of the ideals of fellowship and self-direction are the worthy goals of endeavour. This atmosphere of idealism created by the schoolmaster, in much the same way as that by which the crowd-leader works, will nevertheless be an atmosphere in which the irrational crowd cannot exist. The potential mob will become transformed into a co-operative guild which offers its allegiance to principles and ideals. The teacher in such schools will be content to act the part of guide, philosopher, and friend; he will be a critical adviser and inspirer, who will watch the development of organization and system in the children's activities, and only interfere when this growth is in peril of overthrow and disaster. He will devote his

suggestive powers to the ennobling and stimulating of the natural class-leaders, and he will draw the attention of his scholars to all the examples they themselves provide which may be worthy of remark and imitation. The children will be encouraged to develop the qualities and hobbies which best express their several individualities; so that there will not be one rigid pattern of life, but many patterns, and the accompanying attitude which is prevalent should be one of respectful criticism of them all. A comparison of ideals will, therefore, naturally follow and become habitual, and the value of reason as a basis of idealism will emerge, for it is only from the direct clash and conflict of ideas and impulses that the adequate light can be kindled whereby the human consciousness is enabled to catch glimpses of the essential nature of reason and truth.

#### § 4. Educational Applications

Since the first edition of this book appeared Dr. Frank Hayward, Inspector of Schools under the London County Council, has experimented with considerable success in the application of the method of the Churches to the problems of the school.

He sees clearly that school subjects should be roughly divided into two groups, of which the first includes rudimentary, fundamental, executive or technical subjects, as for example, speech, writing, spelling, composition, number, simple habits and handicrafts, simple self-protective and civic knowledge. In those subjects

it is the task of the school to produce measurable results.

There is also a group of subjects that may be called spiritual, humanistic, or cultural. Religion, civics, morals, music, literature, biography, history and certain aspects of art, geography and science are not necessarily well or badly taught if measurable results are or are not forthcoming. But results in a sense should be looked for. "Tell me what you like and I will tell you what you are," said Ruskin. It is only the "charismatic" teacher (*charisma*, Gr. = gift) who can teach the cultural subjects well.

Obviously, says Dr. Hayward, "individual" methods should be employed in teaching children the first group of subjects, and "mass" methods, the second group.

Dr. Hayward's special "mass" method goes by the name of the "*Celebration*."

To describe a Celebration in detail would be futile, but to the uninitiated we may say that it lies about halfway between a religious service on the one hand, and a lecture or concert on the other. It has a wider and less partisan appeal than the former, and a more unitary and intense appeal than the latter.

#### *Types of Celebration*

But Celebrations differ considerably among themselves.

A *Service Celebration*, which ends with a sort of collective vow or dedication, stands very close to a religious service.

A *Homage Celebration*, in which some generalised *type* of human benefactor receives our homage, stands near to the Service Celebration. In recognition of the nations of the world there is the very similar *Salutation Celebration*.

A *Memorial* Celebration, by far the most popular, and generally the easiest to frame, is designed to honour the memory and recall the deeds of one (or in special cases, two or three) of the specific benefactors of humanity. It occupies the halfway point above referred to.

*Seasonal, Occasional, and Recital* Celebrations are much nearer to Lectures, Concerts and the like than to religious services.

A list of "Celebrations" already held with success includes among others:

SERVICE.	HOMAGE AND SALUTATION.	MEMORIAL.	RECITAL, SEASONAL, &c.
Home.	The Bringer of Health and Healing.	Joan of Arc.	The Psalms.
City.		Florence Nightingale.	Job.
England.	The Bringer of Joy and Laughter.	Lincoln.	—
League of Nations.	The Scientist.	Purcell.	Palestinian Wars.
Animals.	The Geologist.	Schubert.	Great Conquerors.
Temperance.	The Martyr.	Cromwell.	—
Work and Thrift.	The Musician. The Artist.	Isaiah. Milton. Shelley.	Spring. Summer. Winter.

Through the courtesy of Dr. Hayward we are enabled to quote the direction for the "Abraham Lincoln" Celebration in full.



## A MEMORIAL CELEBRATION IN HONOUR OF ABRAHAM LINCOLN

*Instrumental Music: Macdowell's "1620."*

The Pilgrim Fathers went on their famous voyage in 1620. In his music, Macdowell, the greatest of American musicians, has suggested the struggle of the voyagers (who are symbolized by the hymn-like strains in the middle of the piece) against the force of nature, and particularly, perhaps, against the Atlantic storms.

DIRECTOR—*Opening passages from (1) St. Paul's Epistle to Philemon (Onesimus is a runaway slave, liable to the penalty of crucifixion); (2) the writings of St. Paul's contemporary, the Stoic philosopher and martyr, Seneca; (3) W. C. Bryant; (4) J. R. Lowell:*

"Once more a shepherd of mankind indeed."

"One of Plutarch's men talked with us face to face."

We this day keep in memory  
Abraham Lincoln,  
Sixteenth President of the United States,  
Preserver of the Union,  
Liberator of the negro slaves,  
Father of his country.

He, "shepherd of mankind indeed,"  
Claims the honour and reverence of the Old World  
as well as the New.  
He belongs to mankind,  
He belongs to the ages.

And therefore we, as his rugged features are unveiled  
before us, will rise in salutation.

*Portrait unveiled. Music. Audience stand.*

D.—*Introduction, with lines from William Lloyd Garrison.*

SPEAKER—*Discourse: Life of Lincoln to the year of his visit to New Orleans (1809-1828).*

*Two or more Negro songs: (1) Nobody knows, (2) I stood on de ribber, (3) . . . are sung.*

Though “minstrel songs” by Foster and others moved Thackeray to tears, they are not the genuine “sorrow songs” of the Negro slave. For these we have to go to the Fisk Jubilee Singers of 1871, or to Mr. H. T. Burleigh’s Negro Spirituals. These sprang into life in camp meetings and revivals. In them “the cadences of sorrow turn to joy. . . . Deliverance will come and man will be free.”

S.—*Discourse (contd.): 1828-1859.*

*John Brown’s Body lies a-mouldering in the Grave is sung.*

This song passed through four versions, of which this is the third.

S.—*Discourse (contd.): To the Battle of Gettysburg (1859-1863).*

*High Tide at Gettysburg (W. H. Thompson) is recited.*

The story of Pickett’s Charge, told by a Southerner. The failure of this charge meant the loss of the three days’ battle and was the turning-point of the war.

All sing *Mine eyes have seen the Glory, the fourth version of John Brown’s Body.*

S.—*Discourse (contd.): 1863-1864.*

*Marching through Georgia is sung.*

Sherman’s devastating march through the heart of the Confederacy was almost the “last straw.”

*Ethiopia saluting the Colours (Walt Whitman) is recited.*

An aged negress greets Sherman’s army as it marches through Georgia.

S.—*Final Discourse on Lincoln: Death: Character: Famous Words.*

*O Captain! my Captain (Walt Whitman) is recited.*

Lincoln lived for five days with the knowledge that the

Union was safe. He was murdered on April 14th, "when lilacs bloomed." The captain fell on the deck just after the ship had entered harbour.

D and S.—*The Apotheosis of Lincoln by American Poets. Eulogies of Lincoln.*

D.—Let us rise as the portrait of Lincoln is encircled with a symbolic wreath of honour.

*Wreath placed. Audience stand. Music of Lives of great Men all remind Us* is played.

All sing *Lives of great Men all remind Us.*

D.—Passage from J. R. Lowell (*see above*) and the following:

O ever returning Spring ! trinity sure to me you bring ;  
Lilac blooming eternal, and drooping star in the west,  
And thought of him I love.

O powerful, western, fallen star ! . . .

Lustrous and drooping star, with the countenance full  
of woe ;

With the lilac tall, and its blossoms of mastering odour ;  
Comrades mine and I in the midst, and their memory ever  
I keep

For the DEAD I LOVED SO WELL ;

For the sweetest, wisest soul of all my days and lands.

WALT WHITMAN.

Were a star quenched on high,  
For ages would its light,  
Still travelling downwards from the sky,  
Shine on our mortal sight.  
So when a great man dies !  
For years beyond our ken  
The light he leaves behind him lies  
Upon the paths of men.

LONGFELLOW.

Closing words

Chords of Music.

The Celebration Policy is expounded in *The Spiritual Foundations of Reconstruction* (Hayward and Freeman), in *A First Book of Celebration* and *A Second Book of Celebration* (Haywood: London, P. S. King & Son).



## CHAPTER III

### PSYCHOPATHOLOGY AND THE DEVELOPMENT OF PERSONALITY

#### § 1. The Reality of the Subconscious

A PATIENT study of the contributors of the psychopathologist to the science of psychology should reveal to the educator much that is of value concerning the development of personality and of the principal psychic functions. We have shown, we hope, that it is essential for the young teacher, who sets out to teach a class, to learn first to control the class as a collective unit, and we have suggested that the knowledge which may be gained from the study of crowd psychology will prove of great assistance in this connection; we must now endeavour to show it to be no less essential to the teacher's understanding of the child's mind, which he has undertaken to develop and educate, that he should learn from the study of psychopathology what has been discovered in the past few decades concerning the growth and organization of human personality, since it is his primary task to stimulate that growth and strengthen that organization.

In one fundamental respect the doctrines of the psychopathologists differ from those of the normal psy-

chologist whom they found in possession of the domain of what knowledge there was of the human mind: for whereas their conceptions today emphasize, as current philosophy also tends to emphasize, the dynamic nature of consciousness, his were apt to deal almost exclusively with its static aspects. He was inclined to take the sensation as the unit factor of mind, whereas they find it more natural to take the impulse, or "wish," as the most serviceable unit. The difference of outlook is nowhere more apparent than in the treatment of what the latter call "subconscious processes," and the former, after a very tardy admission that they really existed at all, called "subconscious states." Most of us assume today, probably without reflection, that "subconsciousness" is an activity of unquestionable reality. But twenty years ago it was very difficult to discover much about the nature of "subconsciousness" in the standard text-books of normal psychology in use in the colleges and universities. It is due entirely to the researches and the doctrines of the abnormal psychologist that we now regard the conception of a subconscious activity of the mind as indispensable if we are to account satisfactorily for all the phenomena which the mind is capable of displaying.

Even when first the normal psychologist began to admit the probability of the existence of subconscious "states" of mind, he could not agree that they were significant of much. James Ward, for example, held that the subconscious was a mental process of very

slight intensity—so slight, indeed, that it was incapable of drawing attention to itself, and therefore lacked the power of being able to disturb consciousness. Stout held much the same view, being seemingly unaware of any activity worthy of the name in the subconscious background of the mind. James took the greatest trouble to refute the evidence which had been brought forward in favour of the conception of an unconscious "subconsciousness," arguing that what could not be accounted for by physiological factors could be explained by the immediate lapse of memory following upon the normal action of ordinary consciousness. Münsterberg accepted James's view, but went farther and argued for the complete physiological explanation of the unconscious. Morton Prince so far agrees with James and Münsterberg that there are some processes with the marks of mentality that may depend purely upon physiological functioning, but he asserts that there may be also sometimes operating in the mind what he calls "co-conscious" processes, of which the main personality is entirely ignorant. It is significant, too, of the hitherto common attitude that in so comparatively recent a work as Titchener's *Text-book of Psychology* (1910) there is but a single reference in the subject-index to the "unconscious," and none at all to the "subconscious."

One may say, therefore, on the one hand, that whereas the normal psychologists of the nineteenth century held that psychology was the science of consciousness, that the "conscious" and the "psychical"

were completely synonymous terms, that the idea of an unconscious activity of the mind was without foundation, since what is unconscious must be inaccessible and unknowable, and that what little there was of the subconscious (that process of slight intensity which exists below the threshold of the mind) had no psychological significance, the psychologists of the twentieth century, on the other hand, influenced by the theories of Janet, Freud, Jung, Morton Prince, and Rivers, regard the "conscious" as being but a small fragment of the "psychical," and maintain that there are phenomena, mostly pathological in nature, which cannot adequately be explained except by reference to subconscious or unconscious activities of the mind. We are beginning to realize, indeed, that behind and beyond the peaks of consciousness lies—not, as we have supposed, the valley of utter oblivion—but the deep, unslumbering sea of the unforgettable past.

So convinced has the modern psychologist become of the importance of our hidden powers that he has often compared the ordinary mind to an iceberg. Strange simile! But not so strange when we realize that somewhere about nine-tenths of the iceberg lies beneath the surface of the sea in which it floats. Consequently, the simile is a most appropriate one, for in the healthy human mind, below the level of consciousness, there is a mass of unsuspected strength, a deep-set balance and stability. Again, the forces which control the movement of the iceberg (*and of the*

*mind*) are not so much those which act upon its visible parts as those which are at work *below* the surface. Icebergs often move against the wind; and minds, too, do not always obey the dictates of reason.

The concept of the subconscious is so helpful, even essential, to the study of the abnormal, that it may profitably be dealt with first. Generally, we become aware of the fact that a subconscious flight of thought or interest has occurred only when some stimulus from the external world, in the form, for example, of a sudden noise or movement, or of a sharp pain, has interrupted by its strength or novelty the unnoticed process, making us feel in the consequent act of re-adaptation to our material environment that we had temporarily lost touch with our conscious selves. If we re-read a newspaper article or a passage from a magazine that has made no very serious demand upon our attention, we shall probably find that certain passages will strike us with a distinct note of freshness, suggesting that so far as our ordinary consciousness was concerned, we missed them altogether before, although we may be certain that we never really skipped a word. Or when an opponent has got in an athletic blow at our vanity, we have discovered afterwards by careful analysis of ourselves that there occurred to us, though it was unrecognized at the time, an emotional rush of words intended as a screen to hide our discomfiture: stop-gap words, such as "Nonsense," "Not at all," and the like were first thrown out as an obstacle to stem the fury of the attack, so that behind it we might,

more freely, with all our wits at work, construct a fighting form of words to cover effectually our forced retreat. No one will deny having had such an experience, or that while it was occurring the real motive for it was subconscious.

Often, too, we are dimly aware of two conflicting trains of thought or feeling co-existing at the same time. For example, you may have entered a motor-bus or a tram-car, and after settling yourself comfortably and preparing to read, you discover that you are seated opposite to some one whom you have every reason to dislike, inasmuch as you are still smarting under the sense of a very real and recent injury which he has done you. You recognize at once that it would be unseemly to tell him just what you think of him in the presence of strangers, and so you turn to your newspaper or book. But what happens is not so simple as all that. Your feeling of bitter antagonism remains subconscious for a time. Suddenly, however, you realize that you have been reading mechanically, and that your consciousness throbs with the reminiscence of your injury. As soon as you are fully aware of your mental condition the antagonism sinks into the subconscious mind once again, and you take up the broken threads of your interrupted task; yet later on the antagonism irrupts into consciousness as before; and so the two processes of reading and resenting hold alternately the conscious attention, though neither falls at any moment utterly out of mind.

Sometimes, too, we find that while we have been

talking or otherwise consciously occupied, we have been making quite intelligible designs with pen or pencil upon paper, or that we have been re-arranging some part of our clothing, or making a mental note of an affair needing leisurely thought in the future, all activities requiring some considerable amount of attention. The actions of others reveal to us the truth that this kind of subconscious activity is common.

In many well-authenticated cases the subconscious impulses are so extraordinarily superior to the conscious impulses, that they may be responsible for great thoughts, admirable deeds and sublime art. The men themselves who have experienced these impulses have not, it is true, spoken of being swayed by their own subconscious activities. Thus Socrates preferred to say in such circumstances that he was guided and inspired by a *dæmon*; while the author of the Uncle Remus stories declared that another being used his hand to write down the stories which are attributed to him. Joan of Arc was not moved by her own inner impulses to take up the cause of her country: "she heard voices." Nor did William Blake produce his wonderful art by any conscious or unconscious effort: "he saw visions." In his beautifully written book, *The Candle of Vision*, Mr. George Russell attempts to show us how we can all rise above our mundane selves, and by harnessing the impulses of the unconscious within us and running them in harmony with our conscious strivings live the life of the saint, the artist, or the philosopher.

But usually the subconscious trends of activity in us represent markedly primitive and egoistic desires and wishes of which we should be secretly ashamed if we were confronted with them in their naked form. In the neurotic individual, so marked is the divorce between the adult educated conventional consciousness and the vast amount of what has been repressed from memory because it was disliked or gave pain or was socially disapproved, that no longer is there more than a fraction of the energy of the whole personality available for free use. In the more normal individual, blind convictions, superstitions and prejudices, unreasonable fears and antagonisms, queer tricks or eccentricities, represent the commoner forms of locked-up energy which are not at the complete disposal of consciousness. Slips of the tongue and of the pen, together with mistakes of conduct, often show neatly enough the trends of our subconscious thought. Those who wish to test the truth of this statement should compile a list of such personal errors. They will find that not all of them are due simply to natural diminution in the force of their memory for detail when an item of the past has to be recalled, but that, rather, quite a large number of their errors show what they would have preferred to say, write, or do, in place of what circumstances compelled them to say, write, or do. Thus, in a case quoted by Freud, a man who wanted to avoid accepting a certain invitation sat down to compose an apology for non-acceptance, and instead of writing, as he of course intended, "Owing to un-

foreseen circumstances," etc., found actually that he had written, "Owing to foreseen circumstances," etc.

But the evidence for the existence of the subconscious, which is now regarded as irrefutable, has been supplied largely through the facts revealed by a study of hypnosis. Hypnosis may be regarded as a special form of ordinary sleep brought on by suggestion, hypnotic suggestion being an exaggeration of the influence to which all persons, as seen in the last chapter, are normally subject. Hypnosis, according to Charcot, is marked, in its successive stages of intensity, by (1) catalepsy, in which rigid fixity of the muscles of the body is assumed; (2) anaesthesia in certain areas of the skin and in certain sense departments; (3) lethargy, or total lapse of sensory consciousness; and (4) somnambulism, which is characterized by activities on the part of the subject of which he himself is entirely unaware. In hypnosis we may have produced artificially, it has been found, a condition of consciousness very similar to that which has been found to exist in pathological cases of mental disorder. Charcot says, indeed, that "hypnosis is an artificial hysteria." As an example of such an artificially produced mentality, the following illustration may be taken from the writings of Professor Pierre Janet, the pioneer of modern psychopathology, to whom, perhaps, more than to any other investigator, the psychologists of the present day were indebted for their initial knowledge of what goes on behind the curtain of the conscious life. He discovered that the uncon-

scious mental activity, or the "somnambulistic" consciousness, as he called it, which could be set in operation during hypnosis, was able to reproduce intact memories apparently lost beyond recall, and to carry out thought processes of some degree of complexity without the assistance of the waking mind.

In speaking of some experiments which he conducted with the patient whom he calls Lucie, he writes in his book *L'Automatisme psychologique* (p. 262) :

I attempted to secure very simple unconscious judgments. . . . Suggestions were made during deep hypnosis, and the subject was completely re-awakened. Both the signals and the responses took place during the preceding "sleep."

"When I say two letters that are the same, one after the other, you will remain quite unmoved."

On waking her I whisper the letters, "a . . . e . . . d . . . e . . . a . . . a." Lucie remains completely immobile. That is an unconscious judgment of similarity.

Here are recognitions of difference.

"You will fall asleep when I say an odd number," or "You will turn your hands one over the other when I mention the name of a woman."

The result is the same; as long as I repeat even numbers or masculine names nothing happens; the suggestion is executed only when I give the signal. Lucie has, then, listened, compared, and appreciated these differences unconsciously.

I tried afterwards to complicate the experiment in order to see how far unconscious judgment could be taken. "When the sum of the numbers which I shall announce is ten you will make a sign with your hands, a sign of affection."

The same precautions were taken; she was awakened and found to have forgotten what had happened, and while

she spoke with other persons who distracted her attention as far as possible, I whispered at some distance from her, "2 . . . 3 . . . 1 . . . 4," and the pre-determined movement was made. . . .

I wanted to try leaving more independence still to this singular intelligence. "You will write a letter to someone." Here is what she wrote without knowing it once she was re-awakened: "Madame, I am not able to come on Sunday as we arranged: I beg you to excuse me. I should have been glad to come, but I cannot manage that day. Your friend, Lucie. P. S.—Best wishes to the children."

This "automatic" letter is correctly phrased and argues a certain amount of reflection on Lucie's part. She was talking to other people of another matter entirely when she wrote it. Besides, she did not understand anything in the letter when I showed it to her, and suspected me of having forged her hand. (Our translation.)

We may remark, in passing, that there has been suggested by such examples of post-hypnotic suggestion as these a subconscious condition of mental association which escaped the scrutiny of the psychologists of the long-lived "Associationist" school. Ideas, according to the traditional belief, sorted themselves out systematically in some mysterious way upon entering into the mind, and attached themselves to others already there by virtue of their similarity to, or contrast with them, or, it might be, associated with one or another on entry simply by attraction through contiguity of presentation in place or time. The additional factor just now spoken of, illustrated in the behaviour of Lucie, was first given a name by Ach, who in his book, *Ueber die Willenstätigkeit und das Denken* (1905), called it the factor of the mind's "de-

termining tendency." These determining tendencies in the association of ideas are partly inherited and partly acquired.

Stout, in his *Manual of Psychology*, fails to mention them, but it is perfectly obvious, now that their existence has been once pointed out, that if we form a purpose or develop an interest and follow it up systematically, we are able to a certain extent to determine beforehand how any new ideas that may come to us shall be associated; we can arrange that they shall be significant or not in so far as they are or are not valuable to us in the furthering of our aims and ideals. Briefly, then, we may say that the subconscious tendency or purpose directing consciousness decides what is worthy or not of being linked up in memory by the bonds of association. In the case of Lucie's actions, the cause of the determining tendency was external to her own consciousness: it lay at first in the mind of the experimenter, who decided that "a . . . a . . .," for instance, should be associated with the idea of muscular rigidity.

In normal life, the associated idea called up by any single word will depend upon the trend of interest in the mind at the given moment. If a person is intent upon an investigation into the social conditions prevailing among the poor of a big city, the single word "drink" which he overhears may bring up to his consciousness ideas of drunkenness and scenes of debauchery and its attendant squalor; but if the same person is in a relaxed mood, and is feeling the need

for recreation, the stimulus word may suggest good-fellowship and taste sensations of a pleasurable nature. John Masefield, in his poem *The Everlasting Mercy*, shows admirably the powerful effect of a strong determining tendency in influencing the association of ideas. Describing the morning of his sudden conversion, Saul Kane, the hero, declares—

All earthly things that blessed morning  
Were everlasting joy and warning.  
The *gate* was Jesus' way made plain,  
The *mole* was Satan foiled again . . .  
The *mist* was error and damnation,  
The *lane* the road unto Salvation.

The reader may also recall that the song of the thrush in *Back to Methuselah* was heard by the dissatisfied clergyman, Haslam, to say, "Stick it or chuck it: stick it or chuck it." Such subconscious associations as these obviously do not occur to the ordinary mind; there must be a powerful predisposing cause which sets the mind looking, as it were, for them. The educator, therefore, who understands the nature of subconscious determining tendencies will not depend upon any two or more ideas (which are presented to the mind together) fixing up an inseparable companionship on account of their contiguity, similarity, or contrast with respect to one another, or to others already in the mind. He will rather try to connect them through the cementing power of an already existing common interest or passion. Thus, to grasp clearly one's aim in a study is the primary condition

of success in committing its fundamental facts to memory: that is to say, we must decide at the outset what the facts are going to illustrate. This teleological principle in association will be like the lines of force set up by a magnet, and about it suitable facts will, like iron filings in the latter case, arrange themselves systematically.<sup>1</sup>

It is generally true that children forget nine-tenths

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<sup>1</sup> *Recollection* seems to involve a deliberate act on the part of the person who recollects. It is the result of a conscious search among the lumber of the past. You say quite rightly, "Ah, I remember well the happy days we had at school," but if you have forgotten the name of your schoolfellows you try not to *remember* them but to *recollect* them.

*Recognition* is less a conscious act. It is more of a feeling of familiarity among things that we have already known. Thus you may have forgotten your school chum, Jones. But one day you see some one in the street who has an odd trick of carriage that stirs in you the feeling of familiarity which we call recognition. You recognize your friend and go up to speak with him. You say, "I remember you quite well. You were at school with me. But for the life of me I cannot recollect your name."

*Reminiscence* is a term which is gradually creeping into general use in psychology to describe the process by which the once-forgotten past seems spontaneously to *intrude* itself back upon our attention.

#### *Pure Memory and Habit Memory.*

Another distinction, due to Bergson, will be useful.

When we set to work to memorize a list of numbers, or to learn a tune so that it can be repeated without conscious attention, or to perform some difficult act of skill, what we are attempting to do is to set up in the brain and the body a system of delicate co-ordinated connections through which nervous energy set free can course without interruption. Each passage of the nervous energy leaves the track more open for subsequent use. Habits work in this way; there need be no conscious memory attached to them.

Pure memory is conscious. Like reminiscence it bears with it the stamp of time and circumstance which makes it unique.

of the facts taught them because they see no reason why they should remember them. Such facts do not become an organic part of the mind; and having no reason for existence, they fade out.

## § 2. Mental Dissociation

But if it is clear that ideas may be found to become fused together by the welding power of a common purpose, it is also clear that there may be ideas, and interests, too, in the mind which are mutually destructive or find existence together completely incompatible. We may, or may not, be conscious of such incompatibility. In fact, if we introspect our consciousness as thoroughly as it is possible to do, we may probably find that the fundamental fact of the mental life lies in its unity, that all the apparently incompatible elements are somehow unifiable in a single and indivisible process. We shall feel even that processes which may be occurring at the same moment, side by side with each other, but independently, are yet related in some way to the main interest of the mind. Thus we may feel that playing the piano, or skating, and at the same time carrying on a conversation with a friend, are not discordant activities. Yet deeper observation shows another side of the picture. It is extremely doubtful whether the attentive consciousness can be concentrated at the same moment upon two widely different processes, each demanding thought. Parallel processes which do not demand the full attention of the individual may go on successfully,

but let them both claim the sole right of entry into the focus of consciousness, and then no matter how long may be the "specious present," to use James's phrase, during which they are competitors for attention, there is no room in consciousness for them both. One of the processes must be let slip, must go automatically or fall out of consciousness altogether, while the other is favoured with full attention. If skating, or piano-playing, is more or less a matter of habit, then upon the appropriate signal being given and the activity set going, consciousness will transfer itself to the act of conversation, and meanwhile the automatically developing process will run on to its natural close, or until an unexpected interruption occurs, when, and when only, we may become aware that a subconscious process has been progressing without conscious guidance. But in abnormal cases, as in the conduct of Lucie,<sup>2</sup> there does not occur any situation which is able to awaken the mind to the reality of what is happening below the threshold of consciousness. There is in fact a "dissociation," or splitting away of one process from the other, which is beyond repair by ordinary therapeutic agencies. Lucie did not recognize the counting processes, analogous to the piano-playing and the skating activities of our illustration, as belonging to her personality at all. Such a phenomenon as this occurs frequently in pathological cases.

Thus, while on the one hand any dissociation of ideas which occurs in the ordinary mind will probably

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<sup>2</sup> See page 84.

become known sooner or later to the subject "experiencing" it, a similar dissociation in the abnormal case of mentality may be more or less permanent, and the subject all the while totally unconscious of it.

Subconscious activities of the abnormal type may range in complexity from automatic writing to those displayed in cases of what are called multiple personality. Automatic writing has been illustrated by the letter which was written by Lucie. The following example may be compared with that of Lucie's letter. In the case of a subject "A B C," investigated by Dr. Morton Prince, "B," one of the dissociated systems of ideas or purposes, which was capable of functioning with the marks of a personality, was told to perform the operation of adding two numbers together, while "A," another "system of ideas" or "trend of interest," was in control of the consciousness of "A B C." "A" was then called up by means of hypnotic suggestion and given a paper of verses to read aloud. In two opposite corners of the paper had been written numbers which were capable of being added in the head, but nothing was said about them to "A." The reading having been duly executed and the paper taken away, "A" was then dismissed, and "B" called up, the latter, according to Prince, immediately rushing upon the scene and shouting the answer to the sum involving the two numbers. Prince calls a system of ideas such as "A" or "B" a "co-conscious" personality, because it exhibits a certain rationality of behaviour, and because neither is entitled to take prece-

dence of the other as being more representative of the total personality "A B C."

We may learn, then, from the phenomena of automatic and of co-conscious activities of the types illustrated above, that the mind can perform successfully more than one operation at the same time, and that some activities call for the merest minimum of attention. If this is so, then the educational justification for the maintenance of a subject in the school curriculum does not lie in the fact that it provides "employment" for the growing activity of the child, since the child may manage his task without conscious or profitable effort. Educational method calls for full conscious co-operation on the child's part. Consciousness should have its engagements fully booked up. Or to put it in the words of the engineer, the psychic throttle should be opened and a richer, fuller mixture admitted into the heart of the human engine if life is to make its fullest progress. Froebel's principle of allowing the originative impulse its widest scope is the principle which we need. The doctrine of interest is thus justified, as is also the movement in favour of manual occupations for young children. An externally imposed and alien "interest" which does not arise in or appeal to the child-mind will be treated with as little attention as possible, whereas in following up his own native interests it has been observed that a child will cheerfully push on through hours of drudgery, apparently enjoying the experience.

"Somnambulism" is a term used by the French

psychiatrists and psychopathologists to denote a type of mentality which is in dissociation from the main personality, but hardly independent of it enough to be called a form of rational personality. Professor Janet, in *The Major Symptoms of Hysteria*, describes the case of a young girl to whom he gave the name of Irène, who exemplified the phenomena of somnambulism in a remarkable manner. While engaged in working her sewing-machine or in conversation, Irène would often break off her occupation and live through once again, in the most moving manner possible, the agonizing scenes connected with her mother's death, an event which had caused her a severe mental shock. She had tried to revive the corpse and recall the breath, and in the crises of her somnambulism she would simulate these activities again with intense feeling. In addition, she would discuss, apparently with her mother, projects for her own death, and having decided how she would die, would act the scene with a vivid and tragic realism. While she was thus engaged she was completely oblivious of what was occurring in her physical environment, and when the crisis had passed she invariably resumed her interrupted employment at the part at which it had been left off, showing no signs that she was aware of the fact that it had ever been disturbed.

The phenomena of the somnambulistic consciousness illustrate very forcibly the need for the provision of healthy means of expression of the emotions that are sometimes pent up within the mind. Great crises

of grief, fear, anxiety, or hatred leave a lasting effect upon the individual who experiences them, the physical traces of which are often to be observed in the shape of apparently unexplainable habits that cause much trouble in later life. The habit of stuttering may, for example, be the resulting echo of a great fright in early life. The symptoms of St. Vitus's dance may have a similar emotional origin. The wise parent and the educator will never attempt to scold or laugh a child out of its fears, nor insist on the performance of deeds which may terrorize, such as, for example, the entering of dark rooms, the facing of big dogs, and the like. The nervous organization of the child is in a very delicate condition in its first years, and violent emotions will on no account be aroused by the thoughtful guardian. The way of normal healthy development is through quietness and tactful suggestion.

Thus, personality may be regarded as the result of an equilibrium of psychic tendencies, which a severe mental shock will permanently upset or twist from its normally perfect balance. The mother who forcibly prevents her child from gaining the wholesome experience that fire is dangerous to play with, and pulls him away impatiently whenever he approaches it, is doing her best, unwittingly, to arouse the emotion which will cause an unstable condition of equilibrium of the child's mind. The tendency to reach out to the flame will still remain latent and strong, in spite of all her efforts, while the natural tendency towards withdrawal from excessive heat will not have been allowed to de-

velop. Thenceforward, the sight of the fire will probably suggest two totally incompatible tendencies in the child, illustrated in the attitude of fear mingled with dislike towards the mother and the tendency to play with the flames. A more natural method of education would have resulted in the formation of a single complex tendency replacing the two separate tendencies, in which fear would still have been present, but it would have been a fear not of the mother, but of overstepping the limits of safety in its dealing with the fire. It is the worst of errors to prevent the child from learning safely the lessons which Nature has to teach it. Quite sound, therefore, is Dr. Montessori's plan of refraining from the personal correction of her pupils' errors. She prefers to devise exercises for the development of their minds that will be of a self-correcting nature. A correction from the teacher at the wrong moment, especially if it is combined with reproof, may implant a fear in the child's mind which will effectually prevent it from showing the teacher the spontaneous working of its thoughts, and may easily cause it to transfer its attention almost wholly from the task which it is learning to master, to an anxious consideration of the teacher's feelings, and so make it set up the ideal of pleasing or avoiding displeasing the teacher, rather than of gaining competence in its work. The "Children's Houses" were devised as a substitute for the home for similar reasons. Houses, as a rule, are not suitable environments for young children; they contain so many things which invite

their attention but which may not be touched, and many of the petty misdemeanours which disturb the child's existence are due to this fact. In addition, lifelong morbidities of disposition may be caused by the ill-tempered thwarting or correction of the "naughty" child on the part of the adult members of the family, especially if the resulting emotions which are aroused in the child do not find healthy expression.

The further study of the subconscious will bring us face to face with the essential nature of personality, for there are, as we have already mentioned, some abnormal cases which present the phenomena of dissociated systems of thought or trends of interest which are capable of functioning independently of one another and of the main personality, and with all the signs, moreover, of rationality. We may have no hesitation in speaking of such cases as cases of "multiple personality." The case of the Rev. Ansel Bourne, described by Professor James,<sup>3</sup> may be quoted first. Bourne, in January 1887, drew a sum of money from a bank in Providence and disappeared for two months. "On the morning of March 14th, however, at Norristown, Pennsylvania, a man calling himself A. J. Brown, who had rented a small shop six weeks previously, stocked it with stationery, fruit, and small articles, and carried on his quiet trade without seeming to any one unnatural or eccentric, woke up in a fright and called on the people of the house to tell him where he was. He said that his name was Ansel Bourne, that he knew

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<sup>3</sup> *Varieties of Religious Experience*, Cambridge, Mass., 1902.

nothing of shopkeeping, and that the last thing he remembered—it seemed only yesterday—was drawing the money from the bank in Providence."

Another case of a more complex nature is the oft-quoted case of Miss Beauchamp, described by Dr. Morton Prince.<sup>4</sup> Miss Beauchamp was a hospital nurse who was being treated by Dr. Prince for loss of memory and neurasthenia following upon mental shock. Under hypnotic treatment a characteristic consciousness was revealed with memories different from those of the patient. This "personality" was designated "B<sub>2</sub>" by Prince, the personality as first known being designated "B<sub>1</sub>." After a succession of hypnotic trances a second characteristic state of hypnosis appeared, called afterwards "B<sub>3</sub>." "B<sub>3</sub>" was at first docile and amenable to reason, but upon being allowed to open "her" eyes she claimed for herself the dignity of a personality, and gave herself the name of "Sally." She developed into a flippant and irresponsible being, possessing no conventional ethical standards, and at once began to dispute the possession of Miss Beauchamp's consciousness with "B<sub>1</sub>." Later still "B<sub>4</sub>" appeared, called by Sally "the idiot," a personality of normal tendencies and average intelligence, but with no marked vitality, and without any consciousness of the existence of Sally, who, however, claimed to know the thoughts of them both. The hypnotic personalities, "B<sub>2</sub>" and "B<sub>4</sub>," were ultimately synthesized by

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<sup>4</sup> *The Dissociation of a Personality*, New York, 1906; *The Unconscious*, New York, 1914.

Dr. Prince, and an attempt was made to effect a cure of the patient by calling up a waking personality which should be a combination corresponding to the hypnotic "B<sub>2</sub>" and "B<sub>4</sub>," that is, it was to be a fusion of "B<sub>1</sub>" and an unknown other. Sally was gradually squeezed out of existence altogether, and the personality which at length appeared was the original Miss Beauchamp, not as she had been when first seen by Dr. Prince, but as she had been before the emotional shock which was responsible for her mental dissociation.

It has been suggested that the methods of Dr. Prince were largely responsible probably for the complexity of the case, and one cannot help thinking that the picturesqueness and dramatic elements of the phenomena are more or less due, perhaps, to the imagination of the physician. It may be noticed, too, in passing, that Dr. Prince does not attempt to go into detail concerning causes for the dissociation, beyond the mere mention of "mental shock." Now, why should "shock" cause a dissociation of incompatible systems of ideas?

### § 3. The Cause of Mental Dissociation

As has already been stated, all theories which have been brought forward in explanation of the cases similar to those quoted above necessitate the assumption of a belief in the existence of what Janet calls the "subconscious" and Freud,<sup>5</sup> the "unconscious." Janet, in the *Major Symptoms of Hysteria*, states that stable

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<sup>5</sup> *The Interpretation of Dreams*, London, 1913.

See *A General Introduction to Psychoanalysis*, New York, 1920.

and normal personality is due to the successful synthesis of various mental elements. In certain cases there is a weakening of the synthesis, the psychical energy at the disposal of the personality being insufficient to harmonize the incompatible systems of ideas that are present in the mind. When the synthesis is weakened, but not broken down, we have the symptoms of what Janet calls *psychasthenia*, as observed in hallucinations, delusions, obsessions, etc.: when the synthesis is destroyed, *hysteria* appears. "Hysteria is a form of mental depression characterized by the restriction of the field of consciousness, and a tendency to the dissociation and emancipation of the systems of ideas and functions that constitute personality" (Janet).<sup>6</sup>

The causes which are responsible for the diminution of the energy at the disposal of the personality are not dealt with by Janet; indeed, it is difficult to find in his writings any systematic account of the forms and sources of psychic energy. A comparison between the theories of Janet and of Freud will show an interesting contrast between the intellectualistic and the vitalistic points of view. It is certain that the concepts of Freud, in spite of the controversy that has resulted from their statement, have focussed more light on the nature of mental disturbance than any other earlier theories about the constitution and working of the mind. Freud has established the science of mind upon

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<sup>6</sup> Janet's *psychasthenia* and *hysteria* correspond to Freud's *anxiety neurosis* and *conversion hysteria*.

a sure basis, and has rendered futile and foolish the attempts to account for psychic phenomena wholly in terms of physiological concepts. It becomes more and more apparent every year that the final and completely satisfactory theory of mental functioning will be a revised and refined theory based on post-Freudian concepts rather than any earlier theory. Freud has succeeded in removing the centre of gravity in psychological study from the sensation, the perception, and the concept to the "wish," the purpose, and the ideal. No doubt a happy synthesis of post-Freudian and pre-Freudian conceptions will give us the basis for a perfect understanding of the whole matter.

What, then, is the cause of mental dissociation? Freud's principal explanatory concepts in this field which are of general interest are the concepts of the mental "complex" (a term originated by Jung), "mental repression," the "censor," and "mental conflict." The "mental complex" (or, as the French call it, the *idée fixe*)<sup>7</sup> is a system of closely associated ideas fused and unified into an integral process by a strong emotion or a vivid experience, having a subconscious tendency to a characteristic form of expression. As illustrative of the normal mind we may take a hobby as a very good example of a strongly organized complex. If my hobby leads me to be interested in nature, I shall probably plan nature excursions and visits to museums whenever possible. My letters and my con-

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<sup>7</sup> The prevailing tendency is to regard the *complex* as energized by *unhealthy emotions*.

versation will be full of illustrations from nature. I shall look out for nature articles in the newspapers which I am in the habit of reading. I shall choose pictures of country scenes for the adornment of the walls of my house, and designs based upon natural objects will characterize my furniture and other household goods. A hobby is thus a strong "determining tendency." So is a strong prejudice.

In the mature mind there are many such complexes, but they are usually harmonized and subordinated to the will of the full personality, those of lesser significance yielding to those of greater significance when the occasion requires it. The fanatic and the crank are examples of men who have sacrificed the harmony of an all-round development and wide culture to the desire for dominance on the part of one or two powerful complexes. Thus we have the extreme rationalist, the man with a pronounced "logic" complex, who seeks to reduce all life to the expression of a single formula and pooh-poohs the ascription of any great importance to mere human feelings or aspiration.<sup>8</sup>

During the evolution of the child's mind many complexes appear at one time or another, and attempt to claim control of the growing personality, but in normal cases each is in its turn found wanting as incapable of expressing the astonishingly wide variety of the child's

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<sup>8</sup> We have also the moral idealist who is apt to over-emphasize the moral life. To assert the supremacy of the moral life, or the æsthetic activities, is to imply the inferiority of all the other functions of the mind. Surely virtue does not necessitate such unsatisfactory supremacies.

interests. The culture-epoch theory of individual development emphasizes the existence of some of these complexes, as, for example, the hunting complex, the rivalry complex, the games complex, etc., all of which, however, have in face of the requirements of modern civilized life to surrender in turn their claims to supremacy.

The strength and worth of our personality clearly depends upon the quality and organization of our complexes. Strong emotions, by definitely individualizing experiences, are apt to render such organization extremely difficult. This explains why strong interests which happen to occupy the "dome" of consciousness at the moment of severe mental shock are rarely afterwards able to continue in their normal mode of association with the personality; the tendency, rather, is for dissociation to persist. Under most circumstances the strongly emotionalized complex may often obstinately block the path to harmony.

One of the essential problems of the educator, it is agreed, is to build up a harmonious and stable personality out of the incompatible elements supplied by the egoistic impulses and often rival complexes of the individual mind. Left to themselves, the latter are apt to become undisciplined and rampant, and need to be "sublimated," the energy at their service being harnessed, as it were, to higher purposes. If we take the mental complex as roughly equivalent to the "sentiment," as it is explained by McDougall in his *Social Psychology*, but remembering that the "complex" is the

"sentiment" when out of harmony with the main self, then, following McDougall, we shall see that the master sentiment which must dominate all the complexes if a stable personality is to result is the sentiment associated about the nuclear desire for self-control, a sentiment which develops, as McDougall points out, within another sentiment, the self-regarding sentiment. Only so will the rival claims of the many lesser complexes which aspire to complete selfhood and to stamp the whole personality<sup>9</sup> with their quality be effectually subordinated.

Complexes give rise to another characteristic form of subconscious activity. Dr. Ernest Jones,<sup>10</sup> the most distinguished of the English Freudians, speaks of it as the tendency to "rationalization." First we do things because we want to do them, and we find reasons for having wanted to do them afterwards. A person of keen shrewd insight never accepts a personal explanation merely at its face value, but always penetrates beneath it and grasps the real motive should it happen to be concealed. It is useless, for example, for the lover to excuse himself to his mistress when he has failed to keep an appointment with her. The best rationalization in the world, if it is no more than a

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<sup>9</sup> There is much confusion with regard to the meaning of the terms "personality," "individuality," and "character." We would suggest that individuality should be interpreted in a generic sense, to express the biological point of view, and that personality should stand for quantity of individuality, that is, for marked vital qualities, and character for quality of individuality, that is, for marked moral or immoral qualities.

<sup>10</sup> *Collected Papers on Psychoanalysis*, London, 1913.

rationalization, cannot conceal from her the patent fact that he used to surmount all difficulties in his endeavours to keep his appointments, and that if he were still sufficiently eager to see her he would still discover the ways and means of doing so. His comparative neglect is rightly construed as due to failing affection.

We see the mechanism of rationalism at work very beautifully in the phenomena of post-hypnotic suggestion. If you hypnotize a person and suggest that upon regaining the waking state he will cross the room and open wide the windows, then at the time arranged he will carry out your suggestion without the least consciousness of the real origin of his action. And if you ask him afterwards why he has done so he will give you the soundest of reasons for his conduct: he will say, for example, "It was getting extremely hot and stuffy here, and as it is a fine day outside, I thought it would be a good thing to let in as much cool fresh air as possible." Some excellent examples of this tendency to rationalization are to be found in the *New Testament* in the Parable of the Marriage Supper, in which are recounted the reasons given why one individual after another cannot accept the invitation held out to him. The same insincerity is the kernel of the French aphorism, "Qui s'excuse, s'accuse."

Obviously, a strong, well-organized, and stable personality need not necessarily be a completely moral one. A passage from the writings of President Vincent, of the University of Minnesota, may aptly be quoted

here. "Modern students of human nature have changed the old saying, 'Many men, many minds,' into the new dictum, 'One man, many selves.' There is much talk about multiple personality. Our complex life reflects itself in a composite person. A man is said to have as many selves as there are social groups of which he feels himself a member. To maintain a business self which can look a moral self straight in the eye, to have a theological self on good terms with a scientific self, to keep the peace between a party self and a patriotic self, to preserve in right relations a church self and a club self—such are the problems of many a man and woman."

When the master complex, which has the desire for self-control as its nucleus, is weak in its authority, a conflict must inevitably arise among the turbulent complexes which make up the personality. A state of tension develops which paralyzes activity. It is imperatively essential to the maintenance of healthy mental life for some form of useful equilibrium to be arrived at, and consequently the insubordinate complexes must either be modified so that their existence is no longer incompatible with that of the rest, or, though incompatible still, they must be made to exist side by side, without coalescing, in the mind with their opponents, in "logic-tight" compartments, never coming face to face, so to speak, with one another. To aid in this reconciliation of opposing complexes, the reason is often employed unconsciously as the slave of the will. "If the will desires the end, the reason will find the means."

If we do not wish incompatible impulses or ideas to meet, and so inevitably clash, then the task of persuading the personality that no real incompatibility exists must be resorted to. By a judicious selection of facts this is easily achieved. But such self-deception is merely a peace-at-any-price policy: it is a confession of weakness. Should a severe mental shock occur, then the armed neutrality existing among the conflicting mental complexes will disappear in favour of open warfare. It is therefore advisable to inculcate in children early in their life the ideal that their attitude towards their own impulses, ideas, and prejudices should be one of straightforward and frank criticism; they should be taught to distrust the tendency to rationalize all that they do; they must be brought to realize that the little cosmos of the mind is a pluralistic universe, and that the anti-social systems of interest that revolve therein must not be allowed to receive the support of the rational personality. This is not impossible. The child whom one sees to shrink from facing certain unpleasant facts can be brought to admire those who squarely face their difficulties. Stories of great men who did what they disliked can be tactfully introduced, and skilful association with the already existing ideal of himself in the child's mind effected. But *art* and *example* and not mere precept and initial talk are required.<sup>11</sup>

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<sup>11</sup> In dealing with the *idée fixe* and its less powerful relatives the teacher should always prefer the Socratic method of attack to the direct frontal method.

In passing, we may note that another interesting aspect of the subject is revealed to us if we take up the standpoint of the crowd psychologist. Just as the normal social mind is superior in point of human value to the mob-mind, so its most effective instrument of expression, the individual consciousness, transcends the subconscious on which the mob-mind depends for its life. Thus the mob-mind and the sub-self are typically sub-human: we are really human only when they cease to initiate or direct trains of thought. We rise to our full stature but rarely, so rarely indeed that the pessimist in every age and clime has been able to point to man's general behaviour, and use it to illustrate a plausible tale of human nature's worthlessness. What is true, of course, is that the pessimist designates as typically human those sub-human qualities which we share in common with the lower animals. Had he but learnt to concentrate his attention upon the qualities which are characteristically human, upon the moral, intellectual, and æsthetic values which man has created and cherished against the pressure of an implacable fate, how difficult would have been his philosophy, and how paltry his pessimism appeared!

It follows, then, that the sub-self must be effectually governed: the human individual must learn to control the sub-self and its system of anarchic complexes as the ideal statesman would rule a city. Discipline is essential if the human qualities are to find authentic voice. Thus educational method must aim at the strengthening of the child's conscious self-control. The

most stupid and futile educational method ever adopted is the not-yet-extinct taboo method of discipline, for, as we know now, no externally imposed bans can stamp out the complexes of the rebellious sub-self; indeed, their only deep effect upon the individual is the disastrous one of permanently weakening the power of self-control. Only the conscious can control the subconscious, since it alone can fully understand its nature. What we require, therefore, is to encourage the child to adopt an attitude towards his own behaviour of impartial examination. Around the driving impulses and passions a current of cool and steady criticism must be kept circulating continually in the engine of life if we wish to aim at power and progress. So, one's purpose will be clear and clean instead of muddled and blurred.

#### § 4. Historical Résumé

Psychotherapy has its roots in animal magnetism or mesmerism, a method of suggestion and treatment which was introduced without much success to the French medical world in the eighteenth century by Franz Mesmer (1734-1815).<sup>11a</sup>

James Braid of Manchester, twenty-eight years after the death of Mesmer, took up the study of mesmerism, and found it possible to induce sleep experimentally by persuading his patients to gaze steadily at a bright object of a suitable character held before them. It was Braid who named this process "hypnotism." Braid was

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<sup>11a</sup> *The Power of the Mind over the Body*, London, 1846.

little more successful than Mesmer in converting his colleagues of the medical world to the value of his discovery.

It was accordingly not till Liébault re-discovered the process of hypnotism and, with his disciple Bernheim of Nancy, spread the doctrine that hypnotism is merely another aspect of suggestion, that interest in the subject was at all maintained. Bernheim successfully demonstrated the resemblance which exists between the phenomena of hypnotism and those of hysteria, and thus began the era of the psychological study of abnormal mental states which has been so striking a feature of the modern advance in the curative treatment of mind.

Charcot,<sup>12</sup> Director of the Salpêtrière, who did an immense amount of work with hysterical subjects, discovered that in the first place their symptoms were due to the influence of certain painful ideas which had dropped out of consciousness. He never, however, made therapeutic use of this fact, but continued the older physical methods of treatment. Yet his discovery was epoch-making, for it was the seed of which the psychoanalytic theory and all modern psychotherapy are the fruit. Pierre Janet, Charcot's distinguished pupil, developed his master's conceptions. He discovered that if these disintegrating ideas could be brought back into the consciousness of the hysteric, then by suggesting that the occasion of their origin was a shock which had been misinterpreted as being far more harm-

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<sup>12</sup> *Oeuvres complètes*, Paris, 1886-1890.

ful than it really was, the symptoms could be made to disappear. Charcot and Janet discovered, too, that when patients were hypnotized a greater range of memories was made accessible to them; that it even became quite possible, therefore, for the hypnotized patient to recall the forgotten experience in which the symptoms originated.

Janet, as we have said, put forward the theory that what occurs in hysteria is a disintegration of the nervous conditions of mental unity or synthesis: so that there is a splitting of consciousness into irreconcilable part-processes, the painful ones disappearing altogether from the field of conscious attention. Janet endeavoured to produce ideas by suggestion which would counter-attack and obliterate the painful ideas which had caused the disintegration. For example, one of Janet's patients, named by him Marie, suffered constantly from some form of hysterical ailment, usually from a general loss of sensation, but very frequently from a complete blindness of the left eye. In the state of hypnosis one day Marie recollected that at the age of six she had been compelled to sleep much against her will, with another child who had the left side of her face covered with scrofula. This event had caused an extremely powerful emotional disturbance. Soon after this Marie had developed the same ailment, and when her scrofula disappeared, it left behind a loss of sensation in the left side of the face, with blindness in the left eye. At the stage when this memory of the scrofulous child was revived, Janet suggested that the ex-

perience was, after all, not a very harmful one, and immediately he awakened Marie he found her to be normal-sighted. Janet improved upon Charcot, then, by making therapeutic use of suggestion; Freud, as we shall see, improved in turn upon Janet, by dropping suggestion and making fuller use of self-activity in the use of the revivified memories connected with painful experiences which had dropped out of memory.

With his master, Josef Breuer, Freud investigated the very interesting symptoms of a hysterical girl patient and published the results in 1895.<sup>13</sup> This patient of Breuer and Freud was a girl who suffered severely from paralysis and anaesthesia in the limbs on the right side of the body, and from squinting and coughing. One day while she was sitting on the edge of her father's bed—she was in a very unbalanced condition of mind because of the critical condition of her father's health—she saw in imagination a snake which she thought was about to bite her, and she found to her horror that, when she attempted to ward it off, the fingers of her own hands changed into snakes, too, each crowned with a "death's head." Many other hallucinations and other abnormalities characterized her behaviour. After the death of her father she became more normal, but, nevertheless, frequently dropped back into an abnormal state, during which she lived unconsciously, once again, through the events connected with the death of her father. Breuer whispered

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<sup>13</sup> *Studien über Hysterie*, 1895.

to the girl upon one occasion while she was in a hypnotic state some words which she had uttered in one of her unconscious trances, and she was able to give quite a long, intelligible and emotional account of the circumstances originally connected in her memory with these words. This method was found, whenever repeated, to result in the disappearance of the hysterical symptoms, just as the symptoms had disappeared when Janet suggested that they were representative of a shock which was terrible only in appearance. But the difference in the methods was important. In the case of Marie it was the physician (Janet) who took the step of initiating the cure, whereas in the cases treated by Breuer and Freud it was the patients themselves who advanced through self-activity towards their own cures without any suggestion from the physicians that they were doing so. Breuer and Freud found that it could be stated as a general truth that if the memories connected with the origin of a hysterical symptom could be recalled by the patient under the stress of as much of the original excitement as possible, and reviewed calmly and rationally, then the symptoms disappeared. Thus in the above case an aversion to the drinking of water disappeared when the patient recollects that it first showed itself when a dirty little dog had drunk from her glass at a moment when she was unable to object adequately. This method of Freud and Breuer was named by Breuer the "cathartic" method, and the corresponding emotional process in the patient was called "abreaction."

Thousands of shell-shock cases in the late war were cured by the employment of the "cathartic" method. In calmer moments, under the influence of hypnotism, and supported by the sympathy of tactful and capable physicians, soldiers were enabled to re-live through their terrible mind-shattering experiences, and to realize that the mental and physical injuries which they had received were simply due to emotional shock and temporary rather than permanent. Usually at this point they recovered with startling completeness. Let us repeat, then, that the main point of difference between Janet on the one hand and Breuer and Freud on the other was this, that Janet stopped short at suggesting that the shock in which the symptoms had originated was harmless, while Breuer and Freud always allowed the patient to effect his own cure by revivifying and working off the pent-up emotional excitement connected with the painful experience which was the essential cause of the shock. What the hysterical and the neurotic both lack is the will-to-live-efficiently, and since Janet's method of suggestion did not appeal to this factor, it was not permanently effective.

As Freud studied his data more carefully, this self-activity in the process of the cure became the central feature of his treatment, and psychoanalysis, which up to this time had not existed as a definite technique, was developed by him to aid this self-activity. Hypnotism and suggestion were consequently thrown aside deliberately because of the great disadvantages which they

were found to possess. Freud, with his acutely penetrating and analytical ability, has since developed the psychoanalytic method still further, and adapted it for application to a far wider field than is represented by the symptoms of markedly abnormally-minded people. It has been used therapeutically in connection with less definitely abnormal habits, such as untruthfulness, alcoholism, cruelty to animals and to children, to eradicate aversion to work or to foods, and to help those who suffer on account of unhappy marriages or because of religious troubles. As an explanatory hypothesis it has been applied to wit, to literary criticism (e.g., Hamlet), to the elucidation of the psychology of historical personages (e.g., Leonardo da Vinci, Nelson, Darwin), to questions of folk-lore and religion. In all these extensions of the application of the psychoanalytic method Freud has been the brilliant pioneer.

The details of Freud's psychoanalytic method were elaborated, as we have said, to make up for the shortcomings of the cathartic method, and to help the patient to understand for himself, more completely, his unconscious motives. To be more precise, it was because he found that hypnotism increased, in a great many cases, the resistance of the patient to his own cure. Freud found that as often as not the patient actually resented getting well. The great fear, indeed, of every neurotic is that he may have to leave the comparatively safe defence which he has constructed through his symptoms against the buffetings of an un-

friendly and implacable reality. You may reason with him, but the quality of his instincts has already decided his attitude. Instinct and reason are usually at daggers drawn in the little cosmos of the neurotic soul.

An interesting account of a straightforward analysis in the Freudian manner may be quoted from an article by Mary Alden Hopkins (*Child Study*, April, 1916) :—

“When a little girl was seven years old, a queer habit of smacking her lips grew beyond control. At the same time she developed a curious way of walking. Her mother tried in vain to break her of these habits.

“A doctor treated her for St. Vitus’s dance. Under his care she grew much better, but the lip noises and jerkings would sometimes come back when she was tired or excited. After a while a psychoanalyst became interested in her. (A psychoanalyst is a neurologist who treats nervous diseases by analysing the subconscious mind of the patient.) Her analyst sought the reason why she smacked her lips and limped. He knew that to attempt to repress these outward signs without finding what lay behind them was like trying to stop a headache without knowing whether it came from the stomach or the eyes. The analyst picked her up on his knee and asked :—

“ ‘Why do you smack your lips?’

“She considered the matter with her head tipped on one side.

“ ‘I don’t know,’ she replied; ‘I cannot help it.’

" 'Of course you can't,' agreed the analyst, 'but it would be interesting to know why you do it. You know, there is a reason for everything.'

"At first she couldn't remember when the habit began. But the analyst had patience and tact, and knew a great deal about children. After a time she recalled the beginning. Two years before, her mother had told her the reason she must always have her window open at night was because she mustn't breathe the same air twice. When she breathed it in it was good air, but when she breathed it out it was bad air. She drew an unexpected inference from this lesson in hygiene. She thought that since she was for ever making good air into bad she was injuring the air. 'Perhaps,' she thought, 'I can kiss it well again, the way mother kisses my bumps well.' Then began the funny smacking noises—little healing kisses to the air. The habit became automatic. It continued long after she had forgotten the reason.

"Next the analyst found out about the stooping motion. She was afraid she hurt the floor when she stepped on it. Perhaps, she thought, if she touched it gently now and again the floor would understand how sorry she was. The analyst did not laugh at the child. He explained in simple words the chemistry of air and the senselessness of wood. When the reason for the kisses and the touches was removed the emotions ceased—somewhat as the rash disappears when the measles are cured."

In another respect Freud's conceptions changed.

Originally, he was of the opinion that the cause of the appearance of hysterical and neurotic symptoms was to be sought in a severe disturbance of the mental equilibrium. Later, he threw aside the traumatic or "shock" theory, and came to the conclusion which has made so vital a difference to psychology as a science that all mental abnormalities are due to the mechanism of "repression." Repression comes into play whenever a conflict between incompatible wishes or feelings appears.<sup>14</sup>

According to Freud, it is when the clash of conflicting systems is fierce and the emotional stress severe that the possibility of mental "disintegration," "dissociation," or "disaggregation" occurs. Freud holds that in such cases of conflict the complex which is repugnant to the main personality is thrust down out of consciousness, deliberately kept there, and not allowed to appear in the daylight of the conscious mind again. There is an agency which effects this "repression," which Freud calls the "censor" or the "censure" (*die Zensur*). It exists as a barrier between the conscious and the unconscious, and it prevents memories which are painful to the personality from rising into clear consciousness. The conception is more or less figurative, and we can more accurately think of it as an inhibition set up by the conventional or ethical ideals of the individual against those impulses and ideas which

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<sup>14</sup> Nietzsche emphasized the fact of repression quite lucidly when he wrote: "'That have I done,' says my Memory. 'That have I not done,' says my Pride, and remains inexorable. Finally Memory yields."

are antagonistic to them. Freud holds even that most of the forgetting which occurs in our ordinary everyday life is due to the deliberate action of the censor. The pathological cases of hysteria and psychasthenia provide examples of the same phenomenon. For example, in the case of Irène quoted above, Freud would say that the ideas connected with her mother's death formed a complex which was intolerably painful to the personality. To get rid of the possibility of a repetition of the emotional disaster which had threatened to destroy her mind entirely, the mechanism of repression was brought into play, and the highly emotionalized and repugnant complex was thrust out from consciousness altogether. Hence, when Irène was impelled to be somnambulistic, she was unconscious. A compromise was effected which satisfied both the conscious and the unconscious. But, according to Freud, the complex does not disappear when it is thrust down into the depths of the mind; it merely sinks into the unconscious, where, in its ceaseless struggles to regain expression, it works untold mischief to the mind. The unconscious consists in its origin of the memories of very early childhood, which are repressed by the child because they are found to be the cause of pain. All subsequent impulses and ideas that are repressed unite with them, and together the original and the later repressed tendencies make repeated attempts at irruption into consciousness. Wit and humour, according to Freud, represent sudden irruptions of this pent-up psychic energy into expression, and "satisfy" them-

selves in a form (as, for example, the jest of *double entendre*) which eludes the vigilance of the Mrs. Grundy-like censor.<sup>15</sup> If the resistance to expression is very strong, however, there may be effected a compromise, such that the desire for expression on the part of the repressed complex is satisfied, as well as the desire for peace on the part of the main personality. In the case of Irène, the somnambulism represented this kind of compromise. Freud views the symptoms of all hysterical and psychasthenic subjects as compromise formations: anæsthesias, hemianæsthesias, hyperæsthesias, hallucinations, obsessions, and delusions on the sensory side of behaviour, and spasms, convulsions, and the various kinds of paralysis on the motor side. These may be paralleled, Freud thinks, in the case of normal persons, with the act of dreaming, which is a compromise between the desire on the part of the dreamer to sleep and the desire of the unconscious to assert itself.

It must be said that Freud has given a new life to the old doctrine that only the good man is "free." Only, indeed, the man whose complexes are perfectly harmonized and at peace with one another can know the peace that "passeth all understanding." But the science of mental hygiene is still in its infancy. What must be clearly understood is that Freud's psychological theoriz-

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<sup>15</sup> The censor is not an all-enlightened "being"; he may be regarded as often nothing more than the expression of "social prejudice" engaged in putting up a barrage of hostile fire which prevents new ideas from entering the mind.

ing as described above is distinct from the crudities of practice illustrated in the work of many of his disciples.

### § 5. Dreams<sup>16</sup> and Their Significance

As his theory of the nature of the dream-consciousness reveals Freud's point of view very clearly, some of

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<sup>16</sup> A passage from *The Idiot*, by Dostoevsky, may be here very aptly cited, since it suggests admirably the experiences of the average dreamer. "Sometimes one dreams strange, impossible, and incredible dreams; on awaking you remember them and are amazed at a strange fact. You remember first of all that your reason did not desert you throughout the dream; you remember even that you acted very cunningly and logically through all that long, long time, while you were surrounded by murderers who deceived you, hid their intentions, behaved amicably to you while they had a weapon in readiness, and were only waiting for some signal; you remember how cleverly you deceived them at last, hiding from them; then you guessed that they'd seen through your deception and were only pretending not to know where you were hidden; but you were sly then and deceived them again; all this you remember clearly. But how was it that you could at the same time reconcile your reason to the obvious absurdities and impossibilities with which your dream was overflowing? One of your murderers turned into a woman before your eyes, and the woman into a little, sly, loathsome dwarf—and you accepted it all at once as an accomplished fact, almost without the slightest surprise, at the very time when, on another side, your reason was at its highest tension and showed extraordinary power, cunning, sagacity, and logic. And why, too, on waking up and fully returning to reality, do you feel almost every time, and sometimes with extraordinary intensity, that you have left something unexplained behind with the dream? You laugh at the absurdities of your dream, and at the same time you feel that interwoven with those absurdities some thought lies hidden, and a thought that is real, something belonging to your actual life, something that exists and has always existed in your heart. It's as though something new, prophetic, that you were awaiting has been told you in your dream. Your impression is vivid, it may be joyful or agonizing, but what it is, and what was said to you, you cannot understand or recall."

its aspects are here briefly set out. In the *Traumdeutung* Freud gives an historical summary of the various theories about dreams which had been held previously to his own, and shows that no rigorously scientific attempt had been made to examine the psychological data which they provided. The nearest approaches to the scientific method had been made by the physiologists, and were the expressions of a kind of medical materialism, such as that, for example, which traced dreams to an increase or a decrease in the supply of blood to the cerebral cortex and the consequent abnormal excitability of the accompanying mental processes. The problems, however, which attracted Freud were those psychic problems which could not be satisfactorily accounted for by any materialistic theory, namely, why the dream should exhibit marks of definite structure, why only one set of memory images rather than another should appear, why the memories of early childhood should play such an important rôle, and why obliviscence should so completely follow the act of dreaming, just as already, in the cases of hysteria with which he had been working, he had been eager to know why just this symptom rather than that should function. Freud's explanations involve a conception of unconscious memory which treats it as being far more than a register of past events. Every dream, according to Freud's explanation, is a deliberate psychic act, and is the expression and satisfaction of a "wish" or purpose, or interest. In the majority of cases the wish is one which has been disapproved of by the wak-

ing consciousness and repressed. The fulfilment of the wish through the agency of the dream is disguised in accordance with definite rules. Corresponding with the "manifest content" of the dream there is always the veiled "latent content"<sup>17</sup> in which lies wrapped up the core of the dream's meaning, and when it is discovered by the method of psychoanalysis it is invariably found to be the expression of some "wish."<sup>18</sup> Dream images must therefore be taken symbolically.

The "manifest content" is made up generally of memories from the immediate past life of the dreamer mingled with those of very early childhood, and the association of ideas is very loose and superficial, in many cases reaching to the point of absurdity. Actual sensory disturbances which may occur are interwoven with the material of the dream when not of sufficient intensity to awaken the dreamer. The wish involved in the dream, like the painful complex in the case of hysteria, is one which is incompatible with the social ideals of the waking personality. It is usually found to be entangled with a portion of the unpleasant but conquered soul-life of the child. The censor is still active in the dream process, but less vigilant than in the waking life. If only the repressed wishes can disguise themselves, they will be able to slip past the cen-

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<sup>17</sup> Maeder in *The Dream Problem* suggests that Freud was led unconsciously to over-emphasize the importance of the latent content because previous students had almost missed its significance.

<sup>18</sup> Freud seems to have been unfortunate here in his terminology. A "wish" is a conscious act, and to speak of an "unconscious wish" is of doubtful value.

sor and so rise into the twilight of dream-consciousness, where they can enjoy a brief existence, which affords a substitute for the life of the daylight consciousness. There are two characteristics of dreams which aid expression of this type. One is "condensation" by which, through a happy choice of material for the manifest content, the dream fulfils several wishes in one short experience.<sup>19</sup> The manifest content is, we may say, the intersecting point from which various associations diverge in different ways. The second characteristic is "displacement," which consists in an alteration of the relative importance of the dream elements, a "shifting of the psychic accent" from that significant part of the dream which veils the essential purpose of the whole thing to another and more insignificant element which is offered to the censor as the central idea of the dream. A distortion is thus produced which readily deludes the censor into allowing the soul of the dream a compromise form of expression. A tendency to rationalize the manifest content is also noticeable, the tendency towards "secondary elaboration" as Freud calls it. There is also the tendency towards "dramatization," or towards vivid pictorial presentation.

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<sup>19</sup> With regard to the concept of "condensation," it may be said that literature has room for it as well as psychology. The poetic art consists in the structure of images which form intersecting points from which several trains of association lead off, conscious and unconscious. Their manifest contents may have little significance, but their unconscious associations will excite in the mind emotions of a subtle and indefinable nature: through them the unutterable will almost tremble into expression.

Another of Freud's contributions to the science of psychology is his distinction between the "preconscious" and the "unconscious." The former comprises the less significant everyday memories which fade very quickly and are forgotten, though if, while in the preconscious "region" of the mind, they can attract attention to themselves they will probably pass over into active expression. The unconscious comprises the memories and mental processes of early childhood which have been repressed but still retain their power of influencing conduct by transferring their "energy" to analogous ideas repressed from the preconscious.<sup>20</sup> Ideas, therefore, may fail to reach consciousness because they are lacking in significance, or because they have too much significance, and this of a painful kind. The wishes of the adult consciousness, even when repressed, are seldom, in Freud's view, intense enough to motive the formation of any dream, and in most cases, if not in all, need the co-operation of the infantile wishes already mentioned. The "infantile unconscious" can do nothing but wish: it knows no form of inhibition; it is entirely non-moral. In the early period of life it was the only form of psychic experience. With the appearance of self-consciousness, however, there began an inhibition of tendencies which met with the disapproval of the conventional and ethical personality which was evolving. The inhibiting force is the embryo censor; it may be compared with the "traditions of the herd"

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<sup>20</sup> The "unconscious" is thus a psychic Circe in whose presence all our ideas are apt to lose their better forms.

which Trotter speaks of as inhibiting primary wants and lusts. What is repressed consists, according to Freud's opinion, of sexual tendencies. Dr. William Brown<sup>21</sup> thinks that fears, anxieties, and antipathies may equally well form the raw material of the unconscious. Dr. Bernard Hart<sup>22</sup> speaks of the struggle between the "ego" and the "herd" tendencies as a fundamental type of conflict. Jung agrees with Freud that neuroses, dreams, and insanities all spring from internal conflicts, but while Freud traces the cause of all neuroses back to the existence of repressed infantile sexual factors which have never ceased to operate unconsciously, Jung<sup>23</sup> holds that the cause is essentially a present conflict, a defeat of the will to live, an inability to adapt oneself to the requirements of the present moment, which leads to a "regression" of the mental energy into a channel of service which has already been forsaken. Jung's theory posits as an explanatory principle a "*libido*," a life force, a "will-to-live" which is egoistic and pugnacious. It first expresses itself in the instincts of nutrition and self-preservation, later in the sexual tendencies, and finally in the whole multiplicity of human interests, as notably, for example, literature, art, music, religion, and the drama, forms which are intimately connected in their origins with the idealization of sex.

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<sup>21</sup> *Psychology and Psychotherapy*, London, 1922.

<sup>22</sup> *The Psychology of Insanity*, Cambridge, England.

<sup>23</sup> *Collected Papers on Analytical Psychology*, London, 1917.  
*Psychology of the Unconscious*, New York, 1916.

Just as Freud was moved by the desire for consistency and completeness to explain dreams in the experience of normal people by the same principles as he had used for the explanation of the symptoms of his hysterical patients, and introduced the sexual factor into the dream, because he found it in hysteria, so in the same way, perhaps, Jung felt compelled to explain the psychic activities of the race in its childhood by the same principles as those which explain the conduct of the more civilized individual. Jung speaks, therefore of the myth and the fable as being the dream of a people: it is a fragment "from the infantile soul-life of the race." But in order to sustain the conjecture, both of the sexual origin of the dream and of the myth and the fable, certain of the images which are embodied in dreams, myths, and fables must be interpreted symbolically and we must agree that there are typical symbols *in the fixed meanings*. Around the *Freudian* interpretation of this alleged symbolism, much violent criticism has centred, and this part of psychoanalytic theory must remain no more than a brilliant hypothesis until further positive and supporting evidence is forthcoming. The idea that we think in "pictures" in the dream because we have insufficient control of our thought-processes in this barely conscious state is equally probable. What is important for the consideration of the educator as arising out of the theories of Freud is the fact that the child, in some very definite way, becomes a double-minded creature in early life, with strongly formed inhibitions. He will perform actions at the age

of two which he will view with disgust at the age of four, and at the age of ten he will regard with contempt many of those activities which he engaged in with zest at the age of five.

Abnormal psychology has demonstrated, too, the permanence of the experience and memories of the first years of life, and the consequence must be that more and more attention will be paid in the future to the right training of the child during this period, so that he will emerge from it with as small an amount of unconscious energy opposed to the main interests of the mind as possible.

It is essential, therefore, for those engaged in the training of the immature mind to realize that the young child has ethical and practical standards very different from those of the adult, and that it will take delight in, and experience fear at, things which by the adult are treated with complete indifference. Hence the fundamental need for imagination and sympathy in dealing with the weaknesses and shortcomings of the child. Why things are being done by the child is much more important for the consideration of the parent and the teacher than actually what things the child is doing. Many of their methods of correction and help will then appear very crude and futile, if not, indeed, positively cruel. The "latent content" of the activity must be thought about, as well as the "manifest content." We may quote two passages which emphasize the right and the wrong ways of treating the experiences of the child, the wrong method serving to deepen the tendency to the

formation of double-mindedness and the right method helping to render the psychic life of the child a harmonious entity. In *The Research Magnificent* Mr. H. G. Wells writes about one of the childish dreams of the hero as follows:—

"In my dreams that night he (the tiger) stalked me. I made my frozen flight from him, I slammed the door on him, and he thrust his paw through a panel as though it had been paper and clawed for me. The paw got longer and longer. . . . I screamed so loudly that my father came up from his study. I remember that he took me in his arms. 'It's only a big sort of Pussy, Poff,' he said. '*Felis tigris*. *Felis*, as you know, means cat.'

"But I knew better. I was in no mood then for my father's insatiable pedagoguery.

"'And my little son mustn't be a coward.'

"After that I understood that I must keep silence and bear my tigers alone.

"For years the thought of that tiger's immensity haunted my mind. In my dreams I cowered before it a thousand times; in the dusk it rarely failed me."

This passage illustrates very well the normal adult attitude towards the childish fancies. The result cannot be other than to confirm the tendency to the formation of a strong and secretive inner life which the child does not like to face, because he feels it to be out of harmony with the rest of his personality. This dilemma often ends, in the opinion of Freud, in the

compromise-formations which we term nasty habits, such as the biting of nails, the boring of noses and ears with the fingers, the sucking of the thumbs, fidgeting, etc.

It will be clear to most readers, however, that not all dreams are Freudian in meaning, though they may, through the interpretation of their symbolistic images, be made to appear so. Many are but echoes of our general mental unrest. Other dreams are but the revivification of old emotions aroused by recent associations. This type of dream is common among young children, and we advise strongly the close study of their night fears. To quote an example of what may be done in this way.

One of the children of the writer, a boy of nearly four, awoke one night and shouted for his mother, to tell her that he had experienced a nasty dream. His sister, a little older, was awakened by the noise he made, and on learning the cause, advised him to send for his father, who, she said, "would know how to make him better." Fear overcame the mother complex and I was invited to see him. The account and analysis of the dream which occurred are, somewhat compressed, as follows, the remarks of the writer being placed in parentheses.

"Quite a lot of things keep falling." (Are they like anything you have ever seen?) "They are all pointed." (What do they make you think of?) "They make me think of those bootscrapers at the garden door." (They have nasty long points, and I have seen you

playing with them. Have you ever hurt yourself with them?) "Yes, I did today. But look at those flies on the ceiling: they won't go away." (I can't see any.) "Yes, look. I can see three. They are that daddy-longlegs sort." (Have you been dreaming about them?) "Yes, I saw them all the time. I think they are nasty things." (Why?) "They are so big." (When you look at them, what do they make you think about?) "Nothing." (Nothing? Do they look like anything you have ever seen?) "No. They look as big as aeroplanes sometimes." (Were they there when the pointed things were falling?) "Yes."

At this point the unconnected images of the flies and bootscrapers can easily be seen to form a single whole. We have here revived in a disguised form an old memory of an air raid with its aeroplanes and falling bombs, for which the freshly gained unpleasant experience of bootscrapers and flies is used in substitution for the older images which would have caused the "censor" to refuse expression to an experience which had already caused pain and been repressed. The reader must accept the assurance of the writer that the child on discovering the cause of the dream seemed to realize that there was no further danger of air raids (the war being over), and dropped off to sleep very happily.

The more recent speculations of Rivers suggest that Jung may be right in his view of the dream and of mental disorder as due to *regression*. The extraor-

dinarily fine physiological work of Head<sup>24</sup> and his successors has shown us that the nervous system is built up of sub-systems co-ordinated and controlled by the cerebral cortex, graded in a discriminative sensitivity and in power and delicacy of response to outer stimulus. Under strain we are apt to lose the grip over reality which we have secured by dint of strenuous thought and exercise, so that we have our "off days" as we call them. We "slip a system," as it were, and use a coarser reaction. There is ground for believing in corresponding varieties of consciousness associated with the principal stages of evolution in the organization of this complex nervous system. Speaking generally, we may say that the experiences and emotions of childhood and infancy are correlated with earlier developments in the nervous system. This being so, it is easy to understand that when we sleep and the conscious faculties are in abeyance, there is a tendency to carry on with the older apparatus with which the memories of childhood are associated. We still retain our problems in sleep, but we attempt to solve them by means of more obsolete weapons. We think and feel in terms of caricature rather than reality. Rivers has found support for this view in his own dreams which, while different in any single night, have yet proved to be centred round one problem only which analysis has shown to be that in which he had been pre-occupied on the preceding day.

This view is not essentially different from that of

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<sup>24</sup> References and summaries are to be found in *Instinct and the Unconscious*, W. H. R. Rivers, Cambridge, England, 1921.

Jung who sees in the dream a revival of a primitive mode of thinking, the only one of which man was originally capable. This being so, the analyst does not so much need to get the interpretation past the "censor" as to explain the distorted, archaic, infantile images of the dream into language which the subject finds no difficulty in understanding. Jung finds that those whose conscious life is almost wholly occupied with the things of the moment have frequently a tendency to take the "longer view" in dreams. This is what he means by speaking of the dream as usually "prospective." It would be idle to deny that many dreams do definitely fall within this category, and are of the nature of *parables*.

An example of this type of dream is the following:

A man whom we will call Jones sat impassively at home one day while a domestic difference arose in his presence and developed into a bitter dispute. The protagonists were his wife's sister and a visitor staying in the house, and Jones's wife was distinctly annoyed that they should show her so little consideration by quarrelling in her presence. The quarrel need not have arisen at all had Jones exercised an ordinary amount of self-assertion in his previous conduct. That night he dreamed that he heard the visitor leaving her bedroom and going downstairs. A few seconds later he heard her crying out, "Quick! There's a man in the house!" (How ridiculous it was, he remembers thinking, to risk waking up the children in such circumstances by shouting.) "He's standing on his head,"

the voice continued. Not yet disturbed in the slightest degree, Jones wondered why the woman couldn't come up and tell them about it quietly instead of remaining downstairs and shrieking hysterically. Then the words came, and they seemed quite dramatic, "And he's got the keys of the house in his pocket!" Just at that moment Jones's wife stirred in her sleep, and Jones interpreted the movement as marking her intention of getting up to investigate the matter. He immediately became seized with a strange fear, and awoke trembling with anxiety, but hardly knowing for some time whether he was in the real world or not. Now, a careful analysis of that dream, in the course of which Jones allowed his thoughts to take whatever direction they would from the starting-point set them by each of the dream images, revealed to the dreamer the fact which he had long been unwilling to admit even to himself that it was his wife and not he who was the one to initiate action when things had to be done which concerned them both; his fear following upon her stirring reminded him sharply of this truth. Again, on the previous day he had imagined, to soothe his own vanity, that he was displaying a superior wisdom in not interfering in the quarrel; the others were wrong, he alone was right. This attitude of superiority was displayed, too, at the beginning of his dream. But in the dream it was the man—and suddenly he felt with a sure instinct that this man represented himself, for he held the keys of the house—who was impotently stuck upside down on his head while the others were

behaving sensibly. A satisfactory explanation of a dream like this, although it may not be the entire explanation, comes to the dreamer with all the emotional shock of a genuine revelation. Jones was thereafter to take himself rigorously in hand.<sup>25</sup> I have interpreted this material at what the Zurich School would call the objective level. Though a deeper analysis of the material as symbolic would probably have elicited Freudian associations of an infantile and sexual character, one must be allowed to question the advisability of tracking these down when the dreamer is not seriously abnormal. If we go further with our study and ask ourselves what in essence constitutes the intuition and imagination of the artist, shall we find them in any form which is very distinct from that here described as the enlightened unconscious?

#### § 6. Psychoanalysis and “Word Association”

The process of psychoanalysis, to which we have already referred, depends for its success upon the fact that memories which are inaccessible under ordinary circumstances will often rise to consciousness if the patient adopts an attitude of mental laxity, of uncritical reverie; that is, if he allows associations to form freely without any kind of attempt at inhibiting those that seem irrelevant, insignificant, or unworthy, so that the unconscious trends of interest may come to dominate the mental process and the censor consequently cease to function. The censor needs the full support

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<sup>25</sup> See *Brain*, 1911, 1912, 1916, 1917, 1918.

of the conscious personality to repress the ideas of the unconscious, and in the absence of the censor these ideas may irrupt into the realm of the preconscious. The patient may then, with the help of the psychoanalyst, who has formed a theory of the probable cause of the symptoms and knows therefore in what directions to guide the associations, be led to face his painful memories—to see them in the light of reason and in the absence of the disturbing emotions which attended their birth. He will be able to re-live through the painful experience, but on a higher psychic level and with shock-absorbing counter-ideas, and so he will be able to control its expression. "A conflict removed to a higher level is a conflict partly solved." Thus he will be enabled to render the complex mobile and organizable, and the symptoms will become resolved. Psychoanalysis in dream interpretation breaks up the dream into its elements and follows up the associations until those are found which represent the hidden complexes which the mind does not like to face openly. Sleep may "knit up the ravelled sleeve of care" for the time being, but it is a fully enlightened psychoanalysis which must be called in to re-fashion the soul's vesture into a new form.

As we have already said, some people find the problem of adaptation to their social environment so difficult, that they give it up, and shrink back to infantilism and dependence. But the normal adaptable person passes through the various stages of mental growth and its accompanying new adaptation safely enough: he

learns to repress certain emotions and instincts, and to switch off all his mental energy into activities which are socially approved. The neurotic lacks the mental virility to deal successfully with all the varying occurrences of civilized life. The strain of industrial and economic conditions is exceedingly severe in its effects upon him. We find usually, then, that, as a result, he retreats to a former level of satisfaction, and his emotions and energy become canalized in certain stereotyped habits. It is in the serviceable recanalization of the neurotic's energy that the most difficult part of the psychoanalyst's task lies; it calls for all the skill and courage at his command. As the analysis progresses the emotions which had been morbidly centred upon an old way of life—no longer really profitable to the individual or to society—become detached, and are centred upon the physician as the nearest person in close intimacy with him. The process of detachment and reattachment is called by the psychoanalyst "transference." It has a double-edged effect. The patient becomes affectionately disposed, let us say, towards the physician, and this makes him more amenable to treatment, and yet does not, for he fears he may forfeit the good opinion of the physician by showing to him the internal weaknesses and morbidity connected with his symptoms. Thus the physician needs to exert all his skill in stimulating the anaemic will-to-live of the patient into a condition of vitality and resourcefulness. Success in psychoanalysis is almost wholly a matter of being able to deal in a selfless and masterly manner with

transferred emotion. To be the object of affection is very pleasant, flatters one's self-esteem, and the psychoanalyst who has to rise and does rise above preoccupation with his own personality is worthy of the greatest respect.

The “word-association” method of Jung is a useful aid to the psychoanalyst in his endeavour to discover the nature of the complex which lies buried in the unconscious. By careful inquiry conducted among the friends of his patient (when the symptoms themselves throw no light on the cause of the trouble), the psychoanalyst is enabled to form a clue to the nature of the troublesome complex to be sought out and brought back into harmony with consciousness. He uses the word-association method to test the truth of his hypothesis. He gets his patient to take up an easy position, wins his confidence, and leads him to relax his attention as much as possible. He has prepared a list of words, some of which refer directly to the elements of the suspected complex, while the others are of indifferent meaning. This list of words is read over to the patient, who is instructed to reply to the statement of each word with the word which first occurs to his mind. The times taken in reaction are measured, maybe with the aid of a stop-watch, and recorded. Certain characteristic features of reaction are manifested when the suspected complex is rightly located.

In the interpretation of a given dream, too, much progress may often be made if the following “word-association” procedure is adopted. A sheet of paper

should be divided into columns. In the first the principal images of the dream are recorded. In the second column are written the various ideas suggested by each of the images in column one. Then in column three, the first column being no longer referred to, the ideas suggested in turn by each of those in column two are recorded. Similarly, the other columns are filled. It will be found that a skilful associationist will readily divine a trend of thought and feeling in the ideas; he will see them converging towards a point at which the meaning of the dream will be perfectly focussed and devoid of ambiguity. The danger, however, to be faced lies in the nature of the psychoanalyst's own "determining tendencies," and our experience of the practitioners most frequently make us ask, "Do they know them themselves?"

Here is an example of another kind. Two children were involved in the suspicion of having stolen an article from the private room of the teachers at their school, but the probability was that only one of them was guilty. The guilty one had, therefore, as a consequence of his experience, a complex of strongly emotionalized ideas connected with the theft, and it was rightly concluded that he would naturally seek to conceal this complex. He might be expected to act during a word-association test in much the same way as a patient troubled with a "buried complex," the only difference being in the motives which would prevent the rise of the concealed complexes into consciousness out of the dug-outs of the mind. Thus, it might be ex-

pected that the words which were complex “indicators” would cause a confusion and inhibition of thought for a few seconds and so lengthen the reaction times. This has invariably been found in such cases to be so. Of course, words which are intended to act as complex indicators need to be chosen carefully and with skill. If thirty words are chosen in all, then ten of these might be chosen to act as complex indicators, and would be separated from one another by the other words. The whole list of words should be read through twice at least, and the corresponding reaction words and times of each reading should be compared. It has been found that whereas those words which are of indifferent significance produce in the majority of cases the same replies in the repeated series as they produced before, the other words, the complex indicators, often give varied results. Meaningless replies or no reply at all, or the repetition of the stimulus word, are also signs that the complex which is buried in the unconscious has been located.

In the case referred to above, the article which had been taken from the room was a brown leather purse, and on the table where it had been left there was a wastepaper basket, which had been left upside down by a cleaner while the floor was in process of being swept. The culprit in his haste had upset a pot of red ink near where the purse had lain. The circumstantial evidence caused two boys, whom we will name as A and B, to fall under suspicion.

The following represent a few of the results of a

word-association test conducted by the writer in order to try to discover the culprit. The stimulus words italicized were intended to indicate the presence of the guilt complex, if it existed. The words were read twice:

Stimulus Word	Reaction Words and Times in Secs. of Subject A.			Reaction Words and Times in Secs. of Subject B.		
		Sec.	Sec.		Sec.	Sec.
Big	small	1.6	small	1.6	sma,	1.4
<i>red</i>	green	3.8	khaki	4.0	blue	1.2
clock	tick	1.4	tick	1.4	time	1.2
run	jump	1.4	jump	1.4	walk	1.4
<i>brown</i>	bag	1.4	<i>leather</i>	3.6	bag	1.4
man	woman	1.4	woman	1.6	woman	1.2
tick	tock	1.2	tock	1.2	tock	1.2
<i>leather</i>	belt	3.2	<i>no reply</i>		bag	1.2
<i>bring</i>	carry	2.2	carry	2.8	fetch	1.6
tree	field	1.6	field	1.8	branches	1.4
<i>paper</i>	down	4.4	yes	1.4	paper	1.2
<i>basket</i>					paper	1.2
table	chair	1.4	chair	1.4	chair	1.2
house	room	2.0	room	1.4	street	1.4
<i>waste</i>	<i>rubbish</i>	3.0	stuff	4.8	paper	1.2
sing	play	1.4	play	1.2	dance	1.4
green	blue	1.2	blue	1.4	field	1.6
<i>spilt</i>	dirty	5.2	sad	4.2	milk	1.4
					milk	1.6

The inference which may be drawn from the above results is an obvious one, and in the actual case the boy, upon being formally charged after the experiment, was old enough and intelligent enough to realize that he had given himself away by his replies, and consequently confessed his guilt.

### § 7. Conclusion

Psychopathology, we may now agree, has shown that the cause of man's manifold mental anxieties and conflicts lies not so much in the fact of the failure of the

reason to act normally and usefully as in the loss of harmony or balance among the more strongly emotionalized interests of the mind. The degeneracy of the reason is not the root of the trouble, but merely a symptom of it. We were able to show in our last chapter that it is not by the systematic exercise of his logical complex alone that we must hope to render a child normal and proof against crankiness or mental disaster. The secret of sanity, as we may now see, lies in the subordination of the anarchic instincts of the mind to the desire for self-control, and the secret of a rational and a moral personality lies in the cultivation of ideals of social value within the self-regarding sentiment or complex. The educator will more and more, under normal circumstances, be compelled by the dictates of psychology and common sense to transfer his attentions and interests from the task of instruction, with its seemingly inevitable result, the cramming of ill-nourished minds with masses of undigested facts, and away, too, from the mere formal exercise of the reason, to the strengthening of ideal tendencies with the aim of building up stable and sane personalities. Ideas and facts will be of great value in this process, but unless it is realized that something over and above them is needed, to cement them, as it were, the work of the teacher will always be analogous to the process of building houses with bricks and stones in the absence of the binding agency of mortar. In the first mental crisis the structure may collapse. That it does not usually do so is no proof of the suitability of some of our modern

educational methods to the needs of life, but rather of the wide adaptability of the human mind. It is inadvisable, however, to subject the mind to unnecessary strain, and it will be a task worthy of performance to deliver the growing child from the necessity of spending a large part of his psychic energy in quelling the rebellions that threaten to break out within him.

The educator, therefore, while acknowledging the debt which he may feel that he owes to the abnormal psychologist for the light which he has shed upon the growth of personality and the organization of the mind, will probably say that he does not so much wish to know how to deal with the cases of mental breakdown to "minister to a mind diseased, pluck from the mind a rooted sorrow," as to prevent the approach of such a state of affairs.

By some method or other the forces of the unconscious which menace the stability of the personality must be exorcized, or, as this is impossible in any way, must be won over to the service of the rational powers. We must assist the process of "sublimation." Sublimation is a term borrowed from the vocabulary of the chemist and introduced by Freud into psychology. In its original meaning it stands for the process of refinement. The psychical process of sublimation is the process of re-directing the "*libido*" of the soul away from its native anti-social interests to substituted interests of social value. There is thus effected an inhibition of the unconscious, not by a process of repression, but by "drainage," to use McDougall's well-known meta-

phor in a new sense, of the psychic energy at its disposal to other channels of use. Freud says that the process of sublimation should take place as early in life as possible, that it is most effectual when it is an unconscious process, and that the conscious utilization of the psychic energy of the soul by the adult for more refined purposes than those in the service of which they would otherwise function has very feeble effects by comparison.

The Freudian view is that the unconscious forces are, as has already been pointed out, sexual in their origin, and that the sublimation of them consists in the substitution of an aim which is not sexual. Whether Freud's presupposition is a correct one or not, it is at least certain that there are many spontaneous tendencies in the behaviour of the young child which are usually directly checked by its adult companions and an attempt made to root out, so that consequently a full and sympathetic study of these tendencies and of the possibilities of their sublimation for educational purposes is very desirable; it is manifestly better that they should be usefully employed than that they should be driven into the subterranean depth of the mind away from the hostile fire of moral criticism, there adding force to the unconscious repressed tendencies.

Of the more striking specific tendencies which show themselves later in the better-known instincts, it should be possible to make the greatest educational use, since they have the requisite force and persistency capable of forming permanent bases for character-building. It

has already been pointed out by various writers that an idea, of itself, has very little power of spontaneous and forceful self-expression: that we may know, for example, that it is right and proper to be honest, and yet we may neglect to pay any attention to the idea of honesty when confronted with the temptation to steal. If we wish to make an idea potent in the mind, we must harness it to one or more of the great instinctive tendencies. Thus the instinct of curiosity may lead boys or girls towards good or towards evil, just as they are trained. If reproved continually for showing curiosity in undesirable directions, they may grow ashamed of the open exercise of the instinct, and by repressing it add so much as is represented by its power to the energy of the unconscious. If, however, they are led to take an interest in the secrets and wonders of nature, their curiosity will still be able to function, but in a healthy and refined form. The instinct of pugnacity may be enlisted and refined in the service of the ideal of achievement; the hoarding instinct may be usefully employed in the collecting of postage stamps as an aid to geography, in the gathering of plants and flowers as an aid to the study of nature; the instinct of self-display in the dramatic methods of teaching literature and history. Driven down into the unconscious, the anti-social tendencies and crude selfish instincts will, as we have seen, seek every indirect means of emergence, and the various opportunities offered in civilized countries to-day for the vicarious satisfaction of these tendencies show how incomplete have been the sublimations

effected by our educational agencies. The more debased forms of literature, the widespread popularity of the jest of *double entendre*, the more highly sensational productions of the theatre and the cinema, have more significance for the unconscious than for the conscious intelligence. What our ethical standards and the customs of society will not allow us to enjoy legitimately in the form of reality, we may enjoy furtively and half-unconsciously in imagination. Thus the sensual man may visit the picture galleries in search of the latest examples of the nude and employ his reason to delude himself by a camouflage into the belief that he is being entranced with the æsthetic outlines of the human form.

These social opportunities for the indulgence of repressed tendencies are analogous to the dreams of the individual, and are proof of our inability as educators to employ usefully all the force of the soul in the training processes.

Extending Professor William James's ideas of the need for a moral equivalent of war in the demoralizing conditions of a long peace, we may say with assurance today that we need a moral equivalent for all the anti-social forms of conduct which, springing as they may from natural impulses, are expressed in their native manner today to the hurt of society. The boy-scout movement provides the moral equivalent for the open-air love of danger and adventure which it is difficult to arrange for in any other healthy form; the cinemas and the music-halls and the penny dreadfuls provide a form of satisfaction of a less effective kind—

such satisfaction being very often a morbid kind of compromise-formation. Is it at all doubtful which form of solution should be adopted by those who have the responsibility for the welfare of our children?

Little enough has been said in the way of indicating many of the absorbingly interesting problems which a study of psychopathology suggests, but quite enough to make clear to the educator that the nature of personality has been revealed in a new light through its influence. An intelligent study of the subject will render untenable most of the older theories of the structure and organization of the human mind and point to the utter bankruptcy of the traditional psychology of mental processes.

The main conclusion which will emerge will be similar to that which we reached by a consideration of the psychology of crowds, namely, that the human soul is a battlefield upon which the irrational impulses of the personality strive with the rational and ethical interests of the personality for supremacy. The educator must justify his vocation by effectually assisting the latter forces to establish such a mastery that the conquered systems of desire will function, not as rebels, but as willing citizens in the little kingdom of the mental life.

## CHAPTER IV

### THE PSYCHOLOGY OF THE DEFECTIVE MIND: ITS INFLUENCE UPON TEACHING METHODS

#### § 1. The Psychological Treatment of Mental Defect

THE intelligent educator who has acquired a working knowledge of the nature of human personality and of its most characteristic individual and social manifestations will be in the position now to appreciate at their proper values the various methods of education and instruction and of examination and classification which have been popular in the schools; for obviously he will avoid that easy vice which is all too common with those who tackle the problems of instruction and discipline before having studied the nature of the human material with which they will have to deal, of theorizing about pedagogical ways and means without regard for the concrete circumstances of life.

We have already claimed that the psychology of the defective and the subnormal mind must be considered a branch of the psychology of the abnormal; we aim at showing in this chapter that the study of the characteristics of such exceptional types of mind has been of great service in helping us to establish a body of sound knowledge with regard to the most effectual and

economical methods of procedure in the processes of normal education.

According to Binet and Simon, "it was in France that alienists at first began to occupy themselves with the children known under the names of 'abnormal,' 'backward,' 'idiot,' 'mentally deficient,' 'unstable,' etc. Esquirol made the important distinction between the *dément* and the *idiot*; and after him many other alienists—notably Itard, Falret, Voisin—described the principal symptoms of idiocy, or attempted to show that it is capable of amelioration. Seguin, a teacher of defectives who left an honoured name, showed experimentally how one may, by dint of much ingenuity and patience, increase the intelligence and improve the character of some of these unfortunate children. Lastly, Bournville, the well-known physician of the Bicêtre, after having in our own day organized the most important clinique for idiots which exists in France, agitated with untiring energy for the formation in the public schools of special classes for the instruction of abnormal children."<sup>1</sup>

But the fact that Itard, Seguin, and other great teachers and students of the defective mind were by profession physicians should not blind us to the fact that the structure of knowledge and theory respecting the best means of treatment for the abnormal child which they established as a result of their labours was essentially psychological. Though they may seem pri-

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<sup>1</sup> *Mentally Defective Children*, translated by W. B. Drummond, London, 1914.

marily to have dealt with the physical and nervous aspects of the abnormality of such children as they studied, they were in reality concerned primarily with their patients' mental life and growth. Just, then, as in the study of mental pathology (in psychasthenia, hysteria, etc.) we find that the most fruitful contributions to the science of the abnormal mind were due to the attempts of doctors to deal satisfactorily with the mental phenomena with which they found themselves occupied in practice, so in the study of mental deficiency the most interesting and successful methods of treatment and amelioration may also be traced to the attempts of medical men to meet the urgent demands of practical life. Seguin may indeed, for example, speak of his world-famed method of educating idiots as the "physiological method," a description which will conjure up visions in the mind of the simple reader of elaborate and systematically devised methods of remedial physical exercise and development; yet it is obvious from the most superficial examination of Seguin's treatise on *Idiocy*,<sup>2</sup> a book in which we find the principles of his pedagogical method outlined and illustrated, that the fundamental basis of the so-called "physiological method" is after all psychological. A few very brief extracts from the work mentioned will suffice to show that this is so.

1. "Man, being a unit, is artificially analyzed for study into . . . activity, intelligence, and will. . . . The predominance of any one of these functions con-

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<sup>2</sup> New York, 1866.

stitutes a disease, their perversion leads to insanity, their notable deficiency at birth constitutes idiocy, afterwards imbecility, later yet dementia" (p. 58).

This point of view is without question the psychological point of view, and shows clearly that Seguin occupied himself with the whole life of his patients, and not merely with the physical expression of the separate faculties that were deficient.

2. "Deeper than the exercises, than the lessons, than the incitations addressed to intelligence and activity, lies the foundation of our work—in moral training" (p. 52).

3. "The *frightened* grasp must be instantly used to take hold of and to carry things" (p. 79).

On this purely psychological principle, that emotional control precedes mere muscular control, the work of developing the hands and fingers proceeds.

4. "If water be poured from one vessel into another near an idiot apparently deaf, at a time when he is thirsty, he will turn his head and go for a drink" (p. 104).

5. "We search his eyes with our intense and persevering look . . . he tries to escape it . . . the main instrument in fixing the regard is the regard" (p. 113).

Seguin's objective is always the whole personality: his method the psychological method *par excellence*. If we attend to the development of the whole, the perfection of the parts inevitably becomes easy. But attention to the task of perfecting the bodily instrument of

personality merely, without constant respect for the soul itself, is a blind and futile proceeding.

6. "When we educated the muscles, contractibility responded to our bidding with a spark from volition: we exercised severally the senses, but an impression could not be made on their would-be material nature without the impression taking its rank among the accumulated idealities; we were enlarging the chest, and new voices came out of it expressing new ideas and feelings; we started imitation as a passive exercise, and it soon gave rise to all sorts of spontaneous actions; we strengthened the hand, and it became the realizer of ideal creations and labours; we caused pleasure and pain to be felt through the skin and through the palate, and the idiot, in answer, tried to please by the exhibition of his new moral qualities; in fact, we could not touch a fibre of his without receiving back the vibration of his all-souled instrument" (p. 142). And, perfectly tuneful and harmonious vibration was Seguin's great objective.

We may, therefore, with the greatest justification claim Seguin as a psychologist, for nothing could better express the psychological point of view than these short statements illustrative of his methods and aims, and it is not surprising that the results of his work with idiots should have given the student of pedagogical science much vital matter for consideration and thought. We may go farther and say that all successful work with idiots has proceeded consciously or unconsciously along psychological rather than purely physio-

logical lines. A more detailed consideration of Seguin's work occurs later.

### § 2. The Measurement of Defect

Graphical methods of representing the distribution of intelligence among children are now common. Intelligence, like height and weight, when illustrated by a frequency curve, shows at once a huge preponderance of the moderately effective type of endowment. The exceptional or abnormal types are fewer in proportion as they diverge the more from the average. We shall quickly realize, however, that the classification of abnormally gifted children is not a very simple matter. For example, the most obviously exceptional children from a psychological point of view are the blind and the deaf, and they could never be discovered merely from an investigation of the relative amount of their intelligence compared with that of normal children. From a consideration of the *quality* of their psychical endowments, however, many interesting conclusions may be drawn, and these will be discussed later in this chapter. But the first need, at present, in our inquiry is for definitions and criteria.

Children who have been classed as subnormal may be divided into three types: (1) those subnormal in intelligence; (2) those unstable or subnormal in temperament and character; and (3) those of a mixed type, with resemblances to those represented in both (1) and (2). This classification is essentially that of Binet and Simon, but the probability is that the second and third

categories coincide to a very large extent; indeed, the delimitation of the normal from the subnormal is in the present state of our knowledge, as we have agreed, a purely arbitrary delimitation, and will probably always be so because of the difficulty of satisfactory definition of the term "subnormal." In fact, Binet and Simon hold that the criteria of normality of intelligence vary with race and environment, and are probably quite different, for example, in the cases of country children and of town children of the same race, the circumstances of their respective environments being so dissimilar. Binet and Simon first set out on their errand of investigation with the working principle that "Abnormal children are those who are suited for neither the ordinary school nor the asylum: for the school they are not sufficiently good; for the asylum not sufficiently bad." This is, as it stands, a very crude standard, but there resulted from its use their epoch-making conception of every one of us possessing mental ages as well as physical ages, and the formulation of their intelligence tests for the discovery of the former. Thus they found it helpful to speak, for example, of children of nine with a mental age of seven.

As a matter of convenience, they decided to take the view that a child under nine who is two school years behind the average child in intelligence, or three if he is over nine years of age, should be considered backward, and if more than this amount, then definitely defective. The present tendency of investigators is to test the mental performances of a large number of

children of the same age and to take the average results as a measure for the mentality of individuals of the same age, as Binet and Simon did, with the additional use, however, of a *percentage* for the resulting individual values, which thus easily show, and with more accuracy, the excess or the defect of those tested in relation to the average value.

Binet and Simon in their tests constructed five simple questions suitable for each mental year, and gave a score for each question, if answered correctly, of 0.2 years. A child who could answer *four* of the questions for the mental year of *five* correctly, and *two* belonging to the set for the mental year of *six*, would therefore be credited with a mental age equal to the sum of 4 times  $0.2 \times$  five years, and twice times  $0.2 \times$  six years, which works out at 20 times 0.2 plus 12 times 0.2, or  $32 \times 0.2 = 6.4$  years of mental age.

It will at once become apparent that, according to the implications of this view of mental deficiency, the cause of the phenomena of backwardness is intellectual; in which case the educational inference must inevitably be that the ordinary curriculum is as suitable to the needs of the subnormal as of the normal child, but that it needs to be traversed at a much slower rate. Binet and Simon are of the opinion, however, that the causes of deficiency are specific rather than general—and they mention the fact that many children who fail to acquit themselves well in an intelligence test, or in the school examinations, may nevertheless be well up to the average in such attainments and matters of skill as are dis-

played outside the school. Intelligence is not, if this be true, to be thought entirely absent when all the school occupations and teaching methods have been employed without successfully exciting it. Binet and Simon, indeed, concluded that the primary curriculum, which does not make adequate demands upon all the possible varieties of the manifestation of intelligence which are observable in children, is not suitable for defectives, and they argued strongly for the training of the latter in special classes and by special methods. They satisfied themselves from inquiry and experiment that manual employments made the most direct appeals to the abnormal child, and that concrete situations called up more activities than the usual abstract subjects of the school curriculum. "If we take the workshop in opposition to the class as the symbol of the concrete as opposed to the symbol of verbal work, then the shop ought to become in the education of defectives a more important place of instruction than the class."<sup>3</sup> They further decided that the amount of practical and concrete work should be in proportion to the amount of deficiency. Their investigation was empirical; the reason why one method rather than another should appeal to the subnormal mind does not occupy much of their attention.

But one of the greatest results of the study of the mentality of the subnormal child followed, and is to be seen, not only in the organization of special schools for the education of defectives, but also in the widespread

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<sup>3</sup> *Mentally Defective Children*, p. 32.

desire for special curricula for other types of child. The traditional uniformity of curriculum and method for all school-children is fast disappearing in the face of the steady pressure of the criticism, now almost at drumfire intensity, which was originally inspired by the theories and facts about mental growth brought forward by the investigators of the subnormal mind. It was their work, and not so much the practical demands of life (that had been as urgent as they now are for many decades) which opened the path to variety in the organization of our schools. And so we have today the demand for schools for the supernormal as well as schools for the subnormal; for a curriculum that will meet the needs of the country child and one that will meet the needs of the city child; for methods adapted to the peculiarities of the nature of the slum child and methods adapted to the nature of the children of the prosperous; for specialization in subjects more suited to the needs of girls and specialization in subjects more suited to the needs of boys.

The retention of children of the ages of twelve and thirteen years in the lowest classes of the primary school, a practice which may be found today existing in London, and in nearly all the districts which look up to the metropolis as the pattern and exemplar of all that is right in educational organization, is utterly indefensible if the results of the study of subnormal children are to be treated at all seriously. Such children call out piteously for a more suitable grading and a curriculum and methods which will more effectively

meet their needs; they should have them with as much justice as the definitely abnormal child who is blind and deaf has his.<sup>4</sup> Nothing is more calculated to impress big children with a sense of their comparative worthlessness than to be classed at school always with the youngest of their fellows, whom they daily hear praised in words that must inevitably be interpreted as breathing disparagement to themselves; nothing is more likely to crystallize permanently any defect of intelligence which they may have. If the psychology of defective children teaches us anything definite at all about general educational theory, it is that education must be a process aiding a sound environmental adjustment. Given a child of this ability or that disposition, then such training must be given him as will develop this particular form of ability or disposition so that it is productive of the best social results. If the subnormal child has a fair amount of physical strength and an average degree of motor ability, what words of condemnation will be strong enough to designate the folly and wickedness of keeping him year after year at the impossible and uncongenial task of trying to keep pace with others in the acquisition of such bookish knowledge as that for which he is not gifted by Nature,

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<sup>4</sup> The English tendency now is to aim at the organization of four types of state school. There will be schools for children up to eleven years of age. At this age there will then be a sorting out. The "best," say 10 per cent, will go to secondary schools; the next "best," say 20 to 30 per cent, will go to "central" schools, where they will receive an education up to about the age of sixteen; while the remainder will be educated in senior elementary schools, where the curriculum has a decided "practical" bias.

thereby neglecting the talents that lie wasting within him?

What is urgently needed in addition to the medical examination of children for the discovery of physical defects is the systematic psychological examination of children by properly qualified persons for the discovery of psychical defects, and following upon it a school classification of children, not according to their age and intelligence, but according to their more urgent psychic needs.

#### THE WORK OF ALFRED BINET

The Binet-Simon tests for the measurement of intelligence have proved of great value in determining the intellectual classification not only of defectives but of normal children,<sup>5</sup> and this in spite of the shortcomings detected in them by a succession of critics, some of whom have imagined quite wrongly that they were devised to measure intelligence with something like absolute precision, no matter what might be the social rank or the nationality of the children tested. It is essential, if the tests are to be used at all, that they should be administered by sensible persons who have had a sound training in experimental psychology: their use by an amateur must inevitably multiply their defects and vitiate their value. The original aim of the tests, it should be remembered, was to enable teachers to pick out from among the children of their classes, in a rough-and-ready manner, those whom they suspected of

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<sup>5</sup> See Terman, *The Measurement of Intelligence*, 1916.

mental defect, so that the visiting doctor could follow up with a more detailed supplementary examination and an exacter classification. The tests were adopted only after an exhaustive scrutiny. Each test was tried upon a large number of children of the same age, and if it called forth a majority of satisfactory answers, it was retained as being suitable for testing the mentality of children of that age; if not, then a more suitable age was sought for it. The necessity for the tests lay in the inability of the doctor to decide questions of mental deficiency by purely physiological methods, as, for example, by considering physical appearance, characteristic stigmata, and matters of anthropometry. It is now thought essential that the opinion of the doctor should be supported in all cases by the opinion of the teacher. Thus, there must be some very definite agreement about methods of testing the ability and native endowment of children, and, consequently, scales of measurement are absolutely necessary.

Binet certainly demonstrated the possibility of measuring mental efficiency by a system of tests, and if the study of abnormally gifted children has resulted in nothing else, it must at least be credited with having originated a widespread desire for the devisal of scientifically satisfactory psychological tests for measuring both specific and general intelligence.

Enough has now been written in exposition and criticism of the Binet tests to enable us to see their merits and demerits in something like proper perspective. Their present outstanding merit is that in actual

practice, especially in their improved forms, they *work*. In all the countries into which they have been introduced they have made the estimation of intelligence in children a simpler matter than it was. But in spite of the claim that they are able to give us reliable measures of something akin to general intelligence, the fact cannot be denied that they favour children to whom a superior social status or education has given a greater range of knowledge as well as a more facile understanding of language with increased capacity for its use. Thus the Binet questions which call for a knowledge of the date, of the order of the months of the year, of the way to draw a diamond, of the commonest coins, of the way to define certain abstract terms, and so on, are tests of education rather than of capacity. Moreover, Binet's method of scoring the results was not sufficiently refined to be fair to those children who without being actually ignorant of the response needed to a particular question do not give it in such a way as to earn full marks.

The objection to the method of scoring the responses, an "all-or-none" method, has been met, not altogether unsuccessfully, by the construction of the *point-scale* of Yerkes, Bridges and Hardwick, while the language difficulties have been removed by the construction of various kinds of "performance" tests which call for a manual instead of a speech response. The scoring principle employed in the point-scale and in most of the performance tests is that only such tasks are given as are likely to produce easily graded replies: as, for example, the repetition of a number of digits or syllables,

the framing of definitions, the reporting of a number of ideas gained through reading a given passage of prose or poetry. If the score for each test in such a series is carefully fixed, and the total score possible is represented by, let us say, 100, then a percentage representing the average performance at various ages may be used as a standard for individual comparisons.

The method of the *point-scale* tests, designed as it was with a great deal of the Binet material merely to refine the technique of scoring the results, calls for no particular comment, though it may be remarked in passing that the choice of tests is not proof against criticism, while the allotment of the points to the various tests in the scale was arbitrary and based upon no apparent plan. But the performance tests raise the same problems as we have already touched upon in dealing with the earlier methods. Such performance tests<sup>6</sup> as, for example, the Porteus maze tests and those which Pintner and Paterson have collected from the writings of Healy, Knox and others, and have standardized for use as age-scales either to supplement or replace the Binet scale, measure nothing which can be taken as representative of normal intelligence in its full development. Now, either language (and indeed any other acquirement which is intimately connected with the highest human development) must be allowed to play its due part in our tests, or if objection is made to this principle on the ground that this will make them tests of attainment instead of capacity, we must begin

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<sup>6</sup> See the early volumes of the *Journal of Educational Psychology*.

anew the search for ways and means of investigating that mythical bare capacity which is wholly potential and as yet not rigidly canalized by a narrow experience or a too specialized training.

In many tests the attempt to render unnecessary an instruction or a response in language is doubtless useful, as when one is dealing with the deaf, or with the illiterate foreigner, or with the child, from an institution, whose intelligence is not completely at home with words or figures or more abstract ideas, but in order to be fair to these types we are forced to construct tests which are unfair to the child whose environment has favoured the development of his intelligence almost wholly through language and the use and control of abstract ideas. We do not necessarily reveal innate capacity by cutting off the various forms of human expression which are gained only by a few. In so far, then, as performance tests—whether they be laboratory tests involving the comparison of colors or of lifted weights, or whether they be simple manual tasks calling for the arrangement of geometrical shapes into familiar patterns—offer no opportunity for the expression of the intelligence which becomes perfected through the effort to adjust one's thinking to the problems concerned with the more intricate social relationships and to the desire to express oneself through the various arts and crafts, they must to that extent be defective as tests of the more authentic types of intelligence.

By common consent it will now be allowed that

Binet was right in attempting to frame his intelligence tests so that they would permit everyday experience and common knowledge as well as bare hereditary capacity to play their part. Indeed, we now see clearly that only through the use of such experience and knowledge as one acquires during one's lifetime can capacity really express itself adequately. The position today is that we are by no means agreed, however, as to what part these factors should play in our tests. We are all well aware of the meanings which we ourselves attach to the terms, "common knowledge" and "everyday experience," but we cannot define them in such a way as to ensure universal agreement. To revert by way of illustration to the difficulty which has been introduced into our tests with the language factor: as has been rightly said, the fact "that children in better class schools always test higher on the Yerkes scale and on the Binet scale than do children in schools in poorer districts is doubtless due to the better mentality of the former group, but some of the superiority shown by the former group may be due to their superior language environment."

The *alpha* tests employed by the U.S.A. army authorities in the mental examination of recruits illustrate this point clearly. Though, since their design profits from the work of Binet, they may be accepted as constituting the latest and best attempt to measure intellectual capacity apart from attainment as it is to be seen functioning in situations equally familiar to all and with knowledge which no one lacks, it is ques-

tionable whether the basis upon which they are constructed is completely satisfactory. Now whenever we are forced to utilize a basis of common knowledge and everyday experience in our tests, too much care cannot be taken in ensuring that this basis is all that it claims to be. But it has been declared semi-officially that the American army mental examinations "were intended and are now definitely known to measure native intellectual ability. They are to some extent influenced by educational acquirement, but in the main the soldier's inborn intelligence and not the accidents of environment determines his mental grade in the army," i.e., when based on test results.<sup>7</sup>

It may be supposed, therefore, that the American psychologists were satisfied that the basis of their tests was generally sound. Was this actually the case? We may legitimately doubt whether one can ever get a completely satisfactory working basis of common knowledge which will be accepted as fair to all whose intelligence is to be tested. A careful scrutiny of the *alpha* series of tests may make clear the grounds of this scepticism. In the first place, because two out of the eight *alpha* tests demand arithmetical ability for their performance, experience has shown that they operate unfairly against women. It is argued that you may not get a representative measure of a woman's intelligence by giving her calculations to perform. But it may be said that those who cannot calculate speedily

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<sup>7</sup> *Mental Tests in the American Army*, by R. M. Yerkes and C. S. Yoakum, New York, 1921.

ought not to be considered generally intelligent. A similar reply may perhaps be made to those who hold literary capacity to be a specific quality, and consequently maintain that not every one should be expected to know that much the same meaning is signified by each of the following pairs of words which occur in some of the tests: *adventitious*—*accidental*, *ambiguous*—*equivocal*, *lugubrious*—*maudlin*, *encomium*—*eulogy*, *abstruse*—*recondite*, and so on. No one, that is to say, if the argument is sound, should be considered generally intelligent who is ignorant of the meanings of such words as these. I agree, but such arguments imply more than the orthodox intelligence investigator would be ready or willing to admit.

What is implied will perhaps appear from a study of the eighth and last test of the *alpha* series. This is a general information test which could not be answered satisfactorily by any one who is not an American, since it presupposes a wide acquaintance with the principal games, advertisements, names of business firms, manufactured products, the public men and women, and the chief events with their dates in the history of the western hemisphere. Careful attention to this test will compel every student to face the question as to what is to be the guiding principle in the selection of common knowledge and everyday experience as the basis for the construction of intelligence tests. How are we to ensure that we shall not be testing attainments instead of genuine capacity? Why must one type of experience or knowledge be taken and another left?

Why should it be considered that the ability to deal with words and abstract ideas is more representative of general intelligence than anything else? Why omit the common knowledge which the skilled artisan gains in his dealing with the concrete realities of everyday life? If it is true that no really intelligent person is ignorant of the meanings of such pairs of words as those above, why not admit, too, that no person ought to be considered to be generally intelligent who is incapable of doing odd repairs about the house?

This dilemma is a serious one. On the one hand we *must* make a selection from among all possible types of knowledge and experience as a basis for our test questions, but on the other hand if a selection is made at all it is bound to be unfair to those whose intelligence is not allowed its most characteristic means of expression. If a first-rate sculptor or musician should score less in the American army tests than an average bank clerk, as is likely, shall we be wise in saying that the sculptor or musician will be found to be generally less intelligent? Obviously not. A classification of the occupations of nearly two million recruits in accordance with their test-scores emphasizes much the same point as we have been trying to illustrate. While this classification tells us broadly what we might expect about the relative degrees of intelligence which different classes of workmen possess, such as, for example, that the engineer officer grades higher than the casual labourer, it also suggests what we may not be prepared for, that bookkeepers, accountants and clerks

are more intelligent than electricians, telegraphists, automobile repairers, and carpenters. Indeed, these army tests were usually done best by those whose education and training had brought them constantly into contact with the world of words and abstract relations. For such persons speedy adaptation to the test conditions was easy. Those, however, who lived mainly with things in the world of concrete reality and whose development had been mostly one of continuous adjustment to material objects and obstacles, usually found such speedy adaptation to the test conditions difficult.

The question which rises to the mind, therefore, is this: is it really possible to measure adequately by the same set of tests what have become, on the whole, as a result of training, completely different types of intelligence? Other questions supplementary to this also suggest themselves; for example, must intelligence tests necessarily be speed tests? If so, ought a due amount of practice to be allowed to those who may be unfamiliar with the test conditions so that the temporary inefficiency is not mistaken for final incapacity? Again, how far ought anything of a general nature to be inferred from the results of what after all may be definitely particular performances? And most important of all, is there really anything which we can usefully think of as constituting general intelligence, or is general intelligence as mythical a thing as bare native capacity uncomplicated by experience?

To conclude that the expression "general intelligence" is at best a confusing one which corresponds

to no very definite reality, and that the only logical way of testing it, supposing it to be worth testing, would be to construct tests covering an impossibly wide range of various types of experiences, does not mean, however, that we may not usefully get successful rough measures of the ability to deal intellectually with new problems. Tests like those used in the American army will enable us to obtain such rough measures. Only do not let us suppose they will tell us all or even the most characteristic things about the intelligence of the person who submits them. Intellectual ability is but one form of intelligence, though it must be admitted that it is a highly important form, and well worth investigating. Probably the most successful attempt to frame tests for the measurement of this form of ability is represented by the *Graded Reasoning Tests* of Mr. Cyril Burt<sup>8</sup> and the *Northumberland Tests*<sup>9</sup> by Dr. Godfrey Thomson. But intelligence may show itself in other ways unprovided for by our tests. An illustration may be here given. The writer was once engaged with others in testing the intelligence of an unknown subject. It was agreed among us that this person was a man of low mentality, and unlikely to display great ability in any pursuit. But though as far as nine-tenths of his possibilities were concerned this was a correct judgment, it was quite an untrue estimate of the man as a whole, for in one particular direction of which our tests took no account his abilities

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<sup>8</sup> See Ballard, *Mental Tests*, Hanop & Co., London, 1921-1922.

<sup>9</sup> *Ibid.*

were exceptionally marked, so much so that he had gained high university distinction. In this particular direction, intuition and sympathy were the main-spring of his mental activity. It will be understood, therefore, how unwise it is for us to hope to be able to form an accurate estimate of any one's intelligence from his performances in a series of ordinary "intellectual ability" tests. But in so far as intellectual ability represents the capacity to apply oneself to new interests and new tasks, in so far as it means that one's mental organization has not become rigid but is still adaptable, then it is well worth our trouble to get even rough measures of so important a function.

But we need to distinguish between general intellectual ability and the various forms of intelligence.

To what position, then, have we of the post-Binet period arrived after the labours of the last twenty years? It is not difficult to sum up the situation in a few sentences.

1. The idea that innate capacity could be measured apart from the influences of education and training has proved barren.

2. The attempt to construct a single reliable test capable of measuring general intelligence has been given up as impossible.

3. A series of tests will give us a rough idea of the average level of intellectual ability in a subject if such tests cover a wide enough range of its most representative forms. But all average measures should

be distrusted in so far as they obscure significant individual variations.

4. In addition, therefore, to ascertaining the average level of a subject's intellectual ability we are beginning to see that it is increasingly necessary that we should be able to discover where the peaks and depressions, that is, where his mental strengths and weaknesses lie, so that a large number of tests for specific as well as general intelligence will be required before we can finally sum up any individual and attach to him an "intellectual index" which can be taken as a final judgment of his capacity.

5. In short, instead of attempting to guess with regard to any individual merely how much intelligence he has generally, we shall endeavour also to construct tests which will tell us as accurately as possible how much he can show in particular directions.<sup>10</sup>

### § 3. The Classification of Defectives

It is only within the present century that a satisfactory classification of defectives has been begun. The first decided step towards this end was taken by the *British Royal Commission for the Study of the Feeble-minded*, who in their report (1908) described feeble-mindedness as a "state of mental defect from birth or from an early age, due to incomplete cerebral development, in consequence of which the person affected is

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<sup>10</sup> The Board of Education, Whitehall, London, have just published (1924) the results of an exhaustive inquiry into the value of intelligence tests under the title of *Psychological Tests of Educable Capacity* (H. M. Stationery Office, London, S. W. 1).

unable to perform his duties as a member of society in the position of life to which he was born." The Commission suggested further that the general term, feeble-mindedness, might be used to cover three different grades of defect as represented in easily distinguishable forms in the mentality of—

1. The *idiot*, that is, a person "so deeply defective in mind from birth, or from an early age, that he is unable to guard himself against common physical dangers";

2. The *imbecile*, "one who by reason of mental defect existing from birth, or from an early age, is unable to earn his own living, but is capable of guarding himself against common dangers"; and

3. The *feeble-minded* proper, or to use the much better term introduced by Goddard, the *moron* (Gr. *μωρός*, *stupid*), "one who is capable of earning a living under favourable circumstances, but is incapable from mental defect, existing from birth or from an early age, (a) of competing on equal terms with his normal fellows; or (b) of managing himself and his affairs with ordinary prudence."

Through these rough-and-ready common-sense approximations to sound definition we are enabled to find a starting-point from which we can proceed to further precision in our studies.

Now, the trend of modern scientific opinion has taken us completely away from the position of our ancestors, who, lacking a solid ground of reasoned knowledge, viewed mental defect as the mark of a person endowed

with a sort of mind quite different in its quality from the normal type. If, then, we regard mental defect as denoting, when compared with normal intelligence, not a difference in *quality* of mind, but a difference in *quantity*, so that it accordingly appears as nothing other than *arrested* mental development, it should be possible to measure the extent of this arrest with something like accuracy. It is by the application of such psychological tests as the Binet tests that we can carry out such measurement, and if we may trust to experience, it can safely be said in consequence of what has already been done in this connection that adult defectives who cannot pass the Binet tests for normal twelve-year-old children ought, both for their own and for the community's sake, to be segregated; while those who can will, if left to their own resources, rarely drift helplessly into institutions to spend their days, since so many of the occupations in modern society call for the activity of no greater degree of intelligence than they will themselves possess.

At the time when the *British Royal Commission for the Study of the Feeble-minded* reported (1908), the Binet tests, which constituted the first attempt at a scientific measurement of mental ability, had not been popularized in England, so that the precise standardization of degrees of defect was hardly possible. It was in America that the obvious practicability of measurement by the psychological test was first recognized and widely considered. Thus, two years after the publication of the British report, the American

Association for the Study of the Feeble-minded (1910) laid it down that—

1. *Idiots* are those persons who are unable to transcend the performances of normal children of two years of age when faced with the Binet tests, though they themselves may be much older;

2. *Imbeciles* are those persons who range in intelligence between the two and the seven year age-standards, though they themselves may be much older; while

3. *Morons* are those adolescent or adult persons who usually rise above the seven-year-old level of intelligence, but only rarely excel above the normal children of twelve years of age.

Of these three classes of defective persons the morons constitute the most interesting type of the feeble-minded, particularly if we regard them all from the social rather than from the intellectual point of view; for whereas the idiot and the imbecile are seldom found to be actively troublesome or criminal, the ranks of the ne'er-do-wells and the positively vicious are freely recruited from among our morons. Thus, out of one thousand juvenile offenders personally studied by William Healy<sup>11</sup> in America, over 50 per cent were of poor mentality. Other investigators agree with this estimate as reflecting a general truth. Hence the national importance of sound education for this type of defective.

An interesting difference will have probably been ob-

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<sup>11</sup> *The Individual Delinquent*, Boston, 1915.

served between the British and American points of view, viz. that the British Royal Commission attempted to describe feeble-mindedness in terms of *social efficiency*, while the American Association constructed their definitions in terms of *intellectual ability*. Goddard,<sup>12</sup> the leading American authority, already mentioned, has given us in addition a third method of classification of those defectives found in institutions in terms of *occupational capacity*. Thus, he says, the defective who has a Binet mental age of six years can perform tasks of short duration and wash dishes; those with a mental age of eight years can run errands, do light work and make their beds; those with a Binet age of ten years are able to do most of the routine work of the institution; while those with the mentality of normal children of twelve years can learn to use simple machinery, look after domestic animals, and, provided that they are given a task sufficiently straightforward, work well without supervision.

When combined, these three points of view provide us with a useful stereoscopic outlook on the general phenomena of defect, so that no one of them should be neglected.

There is one important fact which should at this

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<sup>12</sup> Goddard advocates the establishment of a bureau for the registration of the mental ages of all of us, so that employers, for example, could be sure that they were employing responsible persons for the performance of difficult tasks involving great powers of attention and thought, and so that the police would be better able to form an estimate of a wrong-doer's mental balance and strength!

stage be particularized before we pass on to our main subject. What often complicates and occasionally obscures the problem of diagnosing mental defect is that enfeebled general ability in any individual may co-exist side by side with a particularly marked aptitude in some special direction, as, for example, it is to be seen in the cunning of the otherwise mentally backward burglar, in the skill of an illiterate prize-fighter, in devoted attention to pets, or in the extremely specialized genius of the *idiot savant*. We may think of intelligence in this connection as finding all the normal paths to expression with just one exception entirely blocked, so that along this single free path all the power of the personality is consequently concentrated.

Closely connected with general intellectual ability and the specific aptitudes which may exist apart from it, is the capacity for personal self-control. Mental defect is not simply a matter of intellectual endowment only. Thus it will be sometimes found that writers point to the existence of defectives who have become social failures not so much by reason of their lack of general intelligence, which, after all, is probably quite good enough for tackling much of the routine work in the worlds of commerce, industry, domestic service and agriculture, as on account of their notable deficiency in the power of personal self-direction. That is to say, we may speak of defectives as being subnormal either in *intellectual* or in *moral* development. The latter class is characterized by ex-

treme emotional oscillation and frequently by an indifference to social well-being. But while it may be said that a large number of the individuals in our prisons are persons who have committed crimes at the dictate of anti-social passions, it is, nevertheless, to make a sound generalization if we venture the statement that the cold calculating self-seeking *moral imbecile*, an individual, that is, of at least average intelligence, but destitute of social impulses, *does not exist*. This is not the opinion, perhaps, which a study of the cinema films would support, but it is the well-considered judgment of many who have gained by patient application a thorough knowledge of hundreds of individual delinquents. Thus Healy, who has surveyed carefully and exhaustively a field probably wider than had previously been covered by any single investigator, writes in his book *The Individual Delinquent*<sup>13</sup> of the so-called moral imbecile as follows:

"Superficially the individual has seemed to be mentally normal as in the cases where there was great development of language ability,<sup>14</sup> but in every single instance a well-rounded investigation has shown distinct abnormality in some other field than in the moral sense, or in a few cases of children further growth has carried the individual past a stage of anti-social conduct."

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<sup>13</sup> Boston, 1915.

<sup>14</sup> A specific aptitude which may or may not co-exist with general intellectual ability.

What this means is that crime and defective intelligence are more closely related than we perhaps imagine; it is a rehabilitation of the view of Socrates that somehow virtue and knowledge are intimately connected, so that if a man becomes a criminal, it is because his intelligence is too poor, either congenitally, by heredity, or by neglect, to enable him to discern what are the enduring satisfactions of life; he has either not become acquainted with the real value of our common ideals of social conduct, or is too mentally enfeebled to appreciate them.

Since we may find persons of adult age with the mental powers of children, it follows that the rate of their learning must be extremely slow. The study of the subnormal mind, therefore, should be of the greatest significance for the educator of normal children, inasmuch as the stages which the latter pass through quickly and more or less spontaneously are, in the case of the former, spread out over a long period or to a certain extent relatively fixed, so that the psychologist is enabled to apply a closer and more rigorous examination to the processes whereby the acquisition of skill and knowledge takes place. Dr. Guthrie, in this connection, in his *Functional Nervous Disorders in Children*, speaks of the idiot as exhibiting the phenomenon of "crystallized infancy." If these stages of development observable in the various types of feeble-mindedness are thus crystallized, then we should be enabled to discover, from a consideration of them, what is the natural order and method of the de-

velopment of the various interests and abilities of the human mind.<sup>15</sup> Life becomes, as it were, a cinematographical show, which we may stop at will while we select for leisurely scrutiny any portion of the film which interests us.

Dr. Montessori's success as a teacher of normal children was due to her happy idea, foreshadowed in Rousseau—who in setting out the plans for the education of Emile had been influenced by the work of Pereira with deaf-mutes—that since normal children pass through the same stages as the defective child, only more quickly, then the methods which have proved successful in dealing with abnormal children should be equally, if not more, effective when applied to normal children. It is, therefore, with the idea of discovering what is the natural method and order of instruction, if indeed there is one, that we should study the means by which the idiot and the imbecile have been successfully educated.

It may be interesting before passing on to set out in greater detail the wide range of our human ca-

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<sup>15</sup> With regard to the causes of mental deficiency, the general trend of scientific opinion is towards the belief that hereditary influences function most powerfully in its production. Goddard holds the view that 80 per cent of defectives are so by reason of inheritance, the others being accounted for by such causes as severe illnesses and accidents in infancy. It has been sufficiently well proved that parental alcoholism and syphilis have a debilitating effect upon the physical basis of mind in offspring; but it is by no means certain whether alcoholism is a cause or merely a symptom of feeble-mindedness. Goddard thinks that more people are prone to alcoholism because of feeble-mindedness than vice versa.

## HIERARCHY OF THE HUMAN ABILITIES

	Processes of the Mechanical level	Processes of the Organic level	Processes of the Human level (Man as creature)	Processes of the Human level (Man as creator)
SENSE	The sense reactions (measurable in speed and acuity). Taste, Touch, Hearing, Sight, Temperature, Kinaesthesia, etc.	SENSORY DISCRIMINATION or sensitiveness to differences in quantity and quality of sense impressions; e.g. heavy and light, smooth and rough, dark and bright, etc.	The finer discriminations; colour, rhythm, pitch, etc.	Ideal sense; of 1. order 2. form 3. beauty
+ INTELLIGENCE	Habit Memory.	Intuition: the practical significance of the above difference.	Recognition of Imagery; e.g. visual, auditory, etc.	Logical understanding. WISDOM
		ASSOCIATIVE MEMORY: for practical experiences.	RECOLLECTION: a. Arbitrary Association. b. Controlled Association.	
+ FEELING	PLEASURE-PAIN	The Primary Emotions	Concrete Sentiments with the emotions: joy, sorrow. (When not rational = prejudices and complexes.)	The Ideal or Abstract Sentiments, The Ideal and
= WILL	IMPULSE. (Appetition and aversion)	The Primary Instincts (=Native Interests)	ACQUIRED INTERESTS: The Sentiments in action.	The fully enlightened WILL of the 1. saint 2. philosopher 3. artist
	HABIT as shown in ROUTINE SKILL	ORGANIC SKILL Attention, as determined by native interest,	SCIENTIFIC SKILL Attention, as marked by the ability to concentrate or distribute it in various ways.	ARTISTIC SKILL Attention as "Contemplation."

pacities and the many possibilities of specific defect which may occur.

#### § 4. Historical Survey of Methods Employed in Educating Defectives

##### I. *Itard's Method*

Itard (1775-1838) prepared the way for the introduction of the modern psychological method. No one who reads his book on the education of the "savage of the Aveyron" can fail to be struck by his impersonal and strictly scientific point of view in dealing with the problem which he had set himself—the development of the mental powers that he thought were latent in his subject. It was the common opinion of his time that the idiot was incapable of tuition, and consequently beyond the hope of improvement. Itard accepted the current opinion, but disputed the judgment of Pinel and others among his contemporaries in their classifying as an idiot the "savage of the Aveyron," a boy of from eleven to twelve years of age apparently, who in 1798 had been caught by three sportsmen while trying to elude them in the wilds, had escaped, and been recaptured. He was found to exhibit but few signs of intelligence; he lacked the power of speech; in behaviour he was fierce and impatient of restraint; in temper he was most capricious; while his habits were disgusting. "Citizen Pinel represented his senses to us as in such a state of inertia that this unfortunate youth was found inferior to some of our domestic

animals."<sup>16</sup> Itard resolved to undertake the boy's education in order to try to justify his own point of view with regard to the question of the boy's potentialities.

He set himself the five-fold task of (1) socializing the "savage," (2) of energizing and refining his senses, (3) of enlarging his sphere of ideas, (4) of teaching him to communicate by speech, and (5) of developing his general intelligence. It will be noted that Itard's order of attack on his problems is psychologically sound. Itard also showed a shrewd psychological insight into human nature in the choice of his methods, and on the whole met with a considerable amount of success; but his failures should be as enlightening as his successes to the educator of normal children. He never forced the boy to follow any particular path by harsh treatment, but made tactful use, whenever possible, of the lad's instinctive preferences and tendencies to secure the ends which he aimed at reaching.

To a certain extent, Itard succeeded in his attempt to attach the boy to social life, by making it more pleasant than the life of the woods to which he had been accustomed, and by associating typical situations in the former with his primary needs, e.g. those of food and warmth. He did not attempt to root out the existing strong tendencies of the boy to roll in the snow and eat it by handfuls, to laugh boisterously at the sound of the wind and at sudden bursts of sunshine, or to linger in melancholy near running water and in the moonshine. Itard could ultimately say, how-

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<sup>16</sup> *An Historical Account of a Savage Man*, Paris, 1802.

ever, that the boy's desire for the life of the woods had lessened considerably, that his meals were less copious and animal-like, and that his periods of sleep were shorter and more regular.

To awaken the boy's sensitiveness to sensory stimuli, Itard began with the sense of touch, and gave him warm baths daily, at the same time exposing him whenever possible to the extremes of temperature at awkward moments, as, for example, upon awakening in the morning.<sup>17</sup> By dint of persistence with these practices and with suitable exercises, Itard succeeded in arousing the touch, and afterwards the senses also of taste, to a more refined extent, and of smell.

Itard's greatest difficulty was experienced in his attempts to get "Victor" to comprehend the meaning of language, and consequently in leading him to communicate by speech. For the educator of the normal child, the lesson to be learnt from the comparative failure of Itard in this direction is the importance of seizing the most favourable moment for the inculcation of habits which involve the setting up of delicate muscular and nervous mechanism, of making immediate educational use, before they disappear, of all the spontaneous tendencies which the child may manifest. "The total disuse of exercise," says Itard, "renders our organs inapt for their functions." If a child is not taught the speech of human beings at

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<sup>17</sup> Our sensitiveness to slight differences of temperature between 26° and 37° C. has been acquired during the period of civilization. See Rivers's *Instinct and the Unconscious*, Cambridge, England.

the natural babbling age, when the nervous material of the speech centres of the brain and the appropriate muscular reactions of the throat and lips are in a favourably plastic condition for the necessary organization, he will never afterwards be able to learn to speak with ease or fluency. Even that universal tendency, the tendency to imitation, may drop out of existence altogether if not taken advantage of and employed in the early years of the child's life. Thus the upholder of the culture-epoch theory of individual development may maintain that he is progressing along natural lines when he makes use of the principal spontaneous tendencies which successively appear in the behaviour of the child—the tendencies to indulge in hide-and-seek, in hunting games, in such co-operative games as "prisoner's base," with their captures and rescues and hairbreadth escapes, in the desire to barter, to collect, to keep pets, etc. One must be careful to employ this principle in an elastic manner, however, and not attempt to make the children fit the requirements of the theory, instead of using the theory as an aid and a test for suitable practice.

A good educational system will make the fullest use of all the spontaneous tendencies of the child, and, as we pointed out in the last chapter, will arrange for their "sublimation" when the natural forms of expression are not socially approvable. Dr. Montessori based her excellent educational system upon the spontaneous life of the child, with but one exception, namely, that she rigorously repressed all displeasing anti-social

forms of conduct. This exception will be approved or condemned just as the student of her method accepts or rejects the Freudian view of the significance of the less admirable habits and tendencies of children. In the schools which are called "Montessori schools" in this country, there seems to be, instead of the Montessorian repression of the ethically undesirable without sublimation, a spontaneity encouraged to the full without sublimation. The happy mean between these two forms seems to us to be the more approvable method of education, and the one for which the science of abnormal psychology would provide support. At any rate, it must be said that, in so far as methods of instruction go, Dr. Montessori has applied the lessons to be learnt from the education of defectives with conspicuous success. She has demonstrated, too, in the case of the normal child, the great part which happiness and free expression play in mental life and growth.

Itard does not mention his predecessor Pereira in his *Historical Account of the Education of a Savage Man*. Pereira had been successful in the task of teaching deaf-mutes to speak, by communicating with them first by means of a manual alphabet and by gestures, and afterwards by means of the vibrations of his voice, which he taught them to sense through their skin. He thus showed that in the absence of one sense, e.g. that of hearing, another might function as a substitute, e.g. that of touch, and he put forward the theory that all successful intellectual training must depend upon a

preliminary and effective sense training. The principal lesson to be learnt by the educator from the phenomena and treatment of psychic blindness and psychic deafness is very similar. The person who is psychically blind is able to see printed words well enough, but only as meaningless characters; he is unable to interpret their meaning by sight, though he knows the words when he hears them. But he may also be taught to recognize them if they are presented to him in Braille type, thus enabling a touch perception and a touch memory to be substituted and function for a visual perception and memory. In the same way, the psychically deaf child hears words, but is quite at a loss as to their significance; yet he may be taught to read lip movements, thus enabling a visual perception and memory to be substituted and function for an auditory perception and memory.

Rousseau (1712-78), a personal friend of Pereira, took over the idea of the latter that the training of the senses should precede the training of the higher mental processes, and developed it in his celebrated book upon the education of Emile. "At the commencement of life, when the memory and the imagination are as yet inactive, the child limits his attention to what actually affects his senses. He wants to touch and handle everything. Do not check his restlessness. This is a necessary part of his training. It is by looking, fingering, and hearing, and above all by comparing sight and touch, that he learns to feel the heat and the cold, the hardness and softness, the heaviness and

lightness of bodies, and to judge of their size and form and all their physical properties.”<sup>18</sup>

Dr. Montessori’s idea that each particular sense should be separately cultivated, and so raised to its highest pitch of perfection, also comes from Pereira. The blind have notoriously a greater delicacy of touch than the normally sighted, and a much finer memory, too, for touch, for movement, and for shape, which is due to the fact that these senses have each received far more attentive exercise than is given to them by normal persons. Why not then oblige the normal child occasionally to depend entirely upon a single sense for his knowledge of the external world? Such is the obvious inference for the educator, and Dr. Montessori has demonstrated that it is a sound principle to work upon. Before her pupils have handled pen or pencil, they have acquired through blindfold exercises a tactful and kinæsthetic memory of the shapes of letters and figures. Thus they have passed unconsciously through the most difficult part of the process of learning to write, without knowing it, and at the same time the preliminary training has been arranged by Montessori in a manner not at all irksome.

Another factor in successful education which is exemplified by the work of Pereira and of Itard is the educational value of sympathy in the teacher. On à priori grounds alone we should be inclined, perhaps, to lay the greatest stress upon it as being a very important quality in the personality of the teacher, but

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<sup>18</sup> *Emile* (Everyman’s Library Edition).

in the case of the successful education of defectives, it has been found to be an absolute necessity. The infinite patience that is continually being called for can only be supplied by a teacher who is brim-full of it. Victor, the savage of the Aveyron, repaid with great affection and attention the sympathy which was bestowed upon him by his guardian, Madame Guérin, and his education progressed to a large extent through the presence of this factor, while Pereira was able to persist successfully in his self-chosen task mainly because of the pity which he felt for the young lady afflicted with deafness and muteness whom he had learnt to know on his coming to live in Bordeaux. Some natures, indeed, call out for a greenhouse type of culture, and develop only when, in a warm and sympathetic environment, they are secure from the rude winds of the unfriendly world.

## 2. *The Physiological Method of Seguin*

Seguin (1812-80), a pupil of Itard in medicine and surgery, who was encouraged by his master to take up the study of idiocy, was also admirably suited for the task by reason of the great sympathy which he felt for the poor and afflicted, and by his profound respect for individuality. The physiological training which he devised for idiots was an application of the idea that efficiency is somehow conditioned by bodily vigour and by capacity for successful sense discrimination, and that consequently all attempts at developing the higher mental functions, before the movements of

the body can be co-ordinated and the senses report the phenomena of the external world satisfactorily, are absurd and futile. Thus, the learning of facts and all such mere memory exercises do not improve idiots; they serve rather to impede their further progress. He that merely increases their knowledge increases sorrow. The natural first step in method is, therefore, to deal with the physical disabilities of the idiot and supply the deficiencies of the muscular apparatus.

To secure this end, Seguin employed many ingenious exercises which aimed at destroying disordered motions and promoting "immobility," for "immobility," says Seguin, "is the fulcrum of movement" (p. 73).<sup>19</sup> In the Seguinian method, immobility is taught in various positions, in standing, in sitting, in reclining one way or another, with or without the aid of the balancing pole, dumb-bells, or rifle. When the child has learned to assume such attitudes of his own accord, he must learn to use his legs. If these do not move at his will, or as they are required to do, they are made to react under the elasticity of a baby-jumper. "Kneading the muscles, handling the articulations, moving with the floor of a treadmill, and like appliances, will give the pupils the strength to walk" (p. 74). The real process of learning to walk follows. If the feet do not make progress, they are brought into contact with a springboard, which throws them up and forward, and then receives them again, with suitable regularity and frequency. When the idea

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<sup>19</sup> Quotations from *Idiocy*, New York, 1866.

of walking has become familiar, the child must learn to walk gracefully without swaying, and for this purpose he must be able to control the balance movements of his arms. He learns to walk between the rounds of ladders placed horizontally, to walk up various grades of stairs, to use the dumb-bells proficiently in order that he may employ his arms for the maintenance of equilibrium when he is in movement, to step accurately upon footprints unevenly spaced out, or upon other marks which wind about over the floor in unexpected directions. "To walk among so many difficulties is to think" (p. 76). Thus is he coached privately, and when some degree of proficiency has been reached he is introduced into the company of others who have become good walkers, and through the force of example, the appeal to the tendency to imitation, the incitements of music, and the encouragement of the teacher, he generally completes the mastery of his task.

The hand is next treated, "the organ of prehension, of seizing, of holding, of letting go," actions which need to be taught. "The frightened grasp," the fear of falling, and the pleasures and pains of rewards and punishments, are all made use of in the Seguinian treatment. The child learns, for example, to lower himself down the rounds of an inclined ladder. "We study him after coming down from that ladder; he is seated or standing . . . piteously enough looking at his hands slightly bruised and heated by the process they have gone through" (p. 80). The next time, "We

do not leave him time to look at his hands, but extending them horizontally, we put on each a bright apple. He, partly to feel the coolness on all the burning surfaces, partly not to let the apple fall, will contract his fingers and get a circular, equable, willed prehension of them: quite a progress on the passive contraction of the hands on the ladder's rounds" (p. 30). The child is next trained to use the wheelbarrow, the spade, the watering-pot, the bow, the wooden horse, the hammer, and the ball, all of which provide for a far greater and more interesting variety of manipulation, control, and satisfaction than any set of formal gymnastic exercises.

Further muscular co-ordinations and movements are taught by personal imitation, and by such games as throwing the bean bag, the clapping of hands while marching in time to music, the placing of nails, pegs, marbles, and geometrical figures into holes and spaces which they fit, the taking apart of collapsible boxes, followed by the replacing of the parts, the threading and the unthreading of beads, the buttoning and the unbuttoning of clothes and the picking up of small articles, such as pins and coins, from smooth surfaces.

The systematic training of the senses follows as soon as the body can be controlled. "Each sense must be taught as a function, and taught besides as a faculty," is the principle underlying the training. If the want of impression lies in the deficiency of the will, then we must set to work to create desires. The sense of

touch is first dealt with, as it is the primary sense from which all the others have developed by differentiation. Experiments with the sense of touch will be of three kinds: (1) to cultivate perception, (2) to transmit it, and (3) to give a knowledge of it; and exercises are chosen in accordance with which of the three aspects needs special emphasis. If the hands are hyperæsthetic in sensibility, then they are hardened by rough work, such as sawing, digging, and handling bricks. If they are dull and insensible, they are titillated with feathers, placed upon bodies of various degrees of polish, plunged alternately into warm and cold liquids, into bags of substances different in point of resistance, such as eiderdown, peas, flour, and small shot, substances which the idiot will learn to recognize while he is blindfolded. Blindfolded, too, the child is taught to recognize things by smell and by taste, and led to desire that which pleases him most.

Seguin recognized that he was unable to deal with any kind of deafness due to permanent organic disease, but in dealing with the types of deafness due to emotional or intellectual causes, he met with considerable success. It will be remembered that Itard's savage could not "hear" the firing of a gun close to him, but he could detect the falling of a nut from a tree in the immediate neighbourhood, a fact which illustrates how desire is able to prompt discrimination.

To develop the sense of hearing, music is employed. "Music, if it has no meaning for idiots, is competent, by the arrangement of its vibrations, to excite in them

many unknown impulses. . . . Music pleases the child without hurting him, a few exceptions reserved . . . it gives rest from harder labour, it causes in the immovable a tremulousness of all the fibres, which is easily turned into incipiency of action; it prepares the nervous apparatus in a similar manner, awakens, quickens, and supports the thoughts wonderfully; it dispels anger, weariness, melancholy, and disposes to gentle feelings; it is a moral sedative par excellence" (p. 104). The child who is insensible to music is placed near a piano, and if necessary rests his chest against the instrument while it is being played and the other children are singing. Alternating with the other lessons, the child is isolated and placed where the only possible sense stimuli are provided by distant music. Before long it is found that the ear becomes sensitive and the auditory attention fixed.

The child is now ready for speech training. He usually can do no more at first than cry instinctively, sigh, or scream, but the physical basis is hereby demonstrated to be present. Mimicry of the teacher's facial and especially oral movements leads to the development, from the instinctive sounds, of the vowels, and while this mimicry is in progress, the children are led to explore with their hands the characteristic features involved in the production of the vowels, and later, of the consonants when they are being learnt. Music aids in rendering the exercises pleasant. The next step is to facilitate the utterance of syllables. Seguin is very emphatic on the danger of interfering

with spontaneous babblings indicating pleasure and pain, and of forcing adult speech upon the child prematurely. His principal task as a teacher is to develop the mechanism of speech, and afterwards to create the desire for the use of it. Its use will inevitably follow the desire for it.

Last of all in the process of sense training comes the training of the sight. The idiot finds it difficult at first to concentrate his gaze upon anything for any length of time.

We have already indicated in a quotation how Seguin proceeded to gain and to keep fixity of regard on the part of the child, and upon this being secured, the child was introduced to various objects and their properties. The kaleidoscope, the exhibition in a darkened room of brightly colored articles and geometrical shapes through the agency of lighted glass apertures, and of fireworks in the open, proved very interesting means of effectually stimulating the visual attention. The balancing pole, again, not only teaches grasp, but will warn the child of impending encounter with obstacles. Coloured glass, marbles, ribbons, balls, etc., are all used in the teaching of colour, and in exercises for the matching and grading of colours. Colours are taught through the well-known method of the three stages popularized by Montessori: (1) the naming of the colour after the teacher, (2) the choosing of the colour when it is named from among two or three others, and (3) the recognition by name of the colour shown, and the ability to discover it among a larger

variety of other colours. Shapes are similarly taught, and later, letters. The child, in imitation of the teacher, will pick out blocks of a given shape from a miscellaneous assortment, a task which calls for considerable thought on his part. The teacher puts the blocks in various positions and the child again imitates. Then follow building exercises of towers and walls and castles, "whose sudden downfall will cause a happy excitement."

The size of bodies is appreciated by actual measurement, and for this purpose the sight, the hand, and special instruments are used. The child learns to choose in order of size, by the use of his sight alone, sticks of progressively increasing length which are laid before him in mixed order, and he arranges them in grades from longest to shortest. The sense of distance also needs to be taught. Objects are placed at equal distances apart by the teacher, and the child imitates him. The first exercises are taken in an enclosed space, but afterwards the child is exercised in the open country and with greater distances.

The representation of objects in a solid form by means of soft sealing-wax, putty, or clay, or soft wood which can be shaped by the aid of a knife, prepares the way for drawing. The cutting out of paper copies of given patterns with the scissors comes next. Such exercises prepare the fingers for the control of pencil and pen and for the notion of a plane surface. They are performed by the children in groups, so that competition may play a part in stimulating each child to

do his best. Next, the child copies on a blackboard the lines which the teacher makes, and learns to arrange them in the same way as the teacher does; straight lines are learnt first, then curves, then combinations of curves and straight lines. It is then possible to teach the letters of the alphabet. It will be observed that this is the process which Dr. Montessori employs, and for which she has been given sole credit by undiscriminating admirers. "The child thus writes," says Seguin, "already by imitation without suspecting it" (p. 123).

In teaching the recognition of the letters of the alphabet, the process is very similar to that of teaching colours and shapes. The child is placed before an alphabet board, upon which are set some printed letters. The child has a similar set placed at his desk, and a letter being chosen by the teacher and given to the child, the latter matches it from his own set and places one on the other. Attention is drawn to nearly similar shapes and to distinctly different shapes, and the child usually learns two or three letters at a time by comparison and contrast. The stage is almost passive, and only involves the recognition of the similarity between his own letter and the one from the board. As in the case of colours and shapes, the child finally learns to pick out any letter that may be named. All that has been done by the child so far is to associate names with objects and with the primary qualities of objects. There is a need of more than that, for the child is not content merely to know things by

name; he wishes to bite them, to lick them, to explore the contours with his hands in every possible manner. But the teacher will not, if true to his vocation, keep the mind centred about the subjective and material aspects of objects; he will seek to elevate the child by introducing concepts of value with regard to them, and will try to teach the child to labour to produce the objects for the pleasure of others.

The discipline and the ceremonies of the school will give the child a standard of morality and also of hygiene.

One may perhaps draw attention here, in passing, to the popular modern educational idea of self-realization as the ultimate good. Seguin occupied himself, like Froebel and Rousseau before him, wholly with the problem of the development of human personality, but a sane study of abnormal psychology should prevent us adopting the unfortunate heresy that personality is the most sacred of all the good things with which the universe teems. The student of the abnormal constantly discovers cases of children who are fitted by nature to become nothing better than weeds in the garden of life, and he cannot therefore regard self-realization as an ultimate value, since it is unable to secure always the supremacy of the good, the beautiful, and the true; for can we gather grapes from thorns or figs from thistles? Yet one finds frequently in the books of our time the sentimental Rousselian idea that the best one can do for a child is to allow it to de-

velop naturally along its own lines. The truth is that personality at its best is nothing better than an instrumental good valuable for its power of achieving greater good, to which it must always be subservient. The educator will therefore attend not merely to the culture of the soil in which the human plant is to flourish, supplying it with good and draining off from it evil, but will also not pause, when the occasion demands, in applying the pruning knife with decision. It is a matter, however, for the sociologist and not for the educator to decide whether it will ever be legitimate to lay the axe finally to the roots.

Summing up the results of Seguin's work from the point of view of the educator of normal children, we may say briefly that—

1. He has proved that no child is too dull or too deficient mentally to learn;
2. The old ideal, *mens sana in corpore sano*, is a sound one, and that the natural progress of the child is from the physical to the intellectual life through the life of the senses;
3. Objects are known to children before their properties and values;
4. The first properties are learnt through taste and smell, next through temperature and touch;
5. Colours are learnt before form, and spatial relations before temporal relations;
6. No artificial separation should be made between the stages of progress, physical, sensory, and intellectual.

### 3. *Montessori Applies Seguin's Methods*

Dr. Montessori—taking her cue from Rousseau's application of the methods of Pereira in his teaching of deaf-mutes to the circumstances of the average child's life and development—applied the principles of Seguin to the education of normal children, but applied them in a thoroughly practical manner, and did not merely theorize amiably, as Rousseau did with regard to the education of Emile. She had been struck by the fact that the defectives in her Orthophrenic School in Rome could equal the ordinary school-children in their attainments, and had therefore come to the conclusion that the methods usually employed in the schools must be somehow vitally depressing and consequently ineffective.

One principle which must have been noticed in our brief account of Seguin's method is the dependence of good procedure upon the appeal to desire as the motive for activity on the part of the pupil. Hundreds of schemes which have been floated in the schools have foundered because of their neglect of this very fundamental principle.

Dr. Montessori,<sup>20</sup> after a study of Seguin, begins in an entirely different and better way. She realizes that the first thing to do is to create a desire in the child to read and to write, and before this is possible the child must be led to see the advantages and benefits which will result from knowing how to read and write. Consequently she has devised games in which reading and

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<sup>20</sup> *The Montessori Method*, New York, 1912.

writing play an essential part. Reading and writing thus come to be a way of expressing very real needs. First of all, very simple directions for the performance of interesting tasks intended for the children to follow are written on slips of paper, and the children are told off, as part of a game, to choose each a paper and to perform the task indicated; clapping greets the successful. It is found after a few games that the children are eager to be allowed to write down messages and directions themselves. The idea is capable of great extension. In every subject of the curriculum there is a need to harness the chariot of progress to the steeds of desire. The child who is taught to play the piano, for example, before he has the slightest desire to do so, and who is kept daily at the task of practising scales which his soul abhors, cannot be expected to make any startling musical progress. Similarly, the children who see no reason for the study of history and geography will make but half-hearted attempts to fulfil the requirements expected of them. An acquaintance with schools where, in addition to the usual subjects, there are also commercial or technical subjects taught to the upper classes will often reveal the fact that the pupils become readily absorbed in their new subjects and treat the English, the history and the geography lessons as a matter of quite secondary importance. This is not altogether because they are embarking on subjects which are more or less novel, since there is hardly anything which, after it has become familiar, is more uninteresting than shorthand and bookkeeping.

exercises: it is because the new subjects seem to the children to be worth the attention that they have to pay to them—they have a prospective money value in them. One cannot but feel, then, that the method of the logician in the matter of bad English teaching is at the bottom of all our difficulties. English has been taught in a way that makes little appeal to the child; indeed, the expression of the thoughts, instead of being a vital matter for him, has become no more than a hateful daily or weekly "exercise," like "stating a fact"—a process to be put up with in order to help the teacher with his unfortunately necessary work. At the most it will be a subject to gain marks in, something which gives the child an opportunity of getting ahead of his rivals in the lists of school results. Seguin's practice and the unsuccessful practice of his predecessors show that it is mere folly to begin with the teaching of any school subject before the child is able to feel the need of the acquisition of proficiency in it. Sturt, in the *Principles of Understanding*, has very well shown how fundamental a part desire plays in the development of the mental life. Step by step in the evolution of life, desire develops in complexity and particularity with the idea of the objective world. The smallest organism searching for food, or striving to elude the pursuit of a larger organism, has at least, though probably no more than, the two fundamental desires which these activities indicate, and its idea of the objective world is confined to the recognition of situations appropriate to the functioning of these two desires. Indeed, there

is no need for any other form of cognition at this stage. Desire, as it evolves and becomes more particularized, defines itself by reference to the objects of desire. Individual offspring, for example, are not cognizable as individuals by the parent animal who has successive large broods of young; it is personal affection which prompts the cognition of individuals. Thus all passion is "prior to understanding," and the work of Dr. Montessori has happily emphasized the need which Seguin made thoroughly clear, of basing all instruction upon the spontaneous impulses and the purposive desires of the pupil.

Dr. Montessori is able to employ the first principle of Seguin respecting the need for teaching muscular co-ordination and movement before proceeding to the development of the sensory life in furthering the organization of her school. The "Children's Houses" are managed in a sense by the children themselves, who set out their own chairs and tables, which are light enough for them to carry about from one place to another, while they are taught to help to take the domestic utensils in use from the rooms where they are kept to the rooms where they are required, or vice versa; the children, indeed, will manage to carry such articles as tureens of soup without spilling any of the contents. They are thus ready for the sense training which is a characteristic feature of the Montessori method.

Dr. Montessori endeavours, as she says, and it is in the Seguinian manner, "to lead the child, as it were by the hand, from the education of the muscular sys-

tem to that of the nervous system and of the senses." It is very apparent, however, to the close observer that Dr. Montessori does not in this connection wholly grasp the psychological point of view of her master. To him every bodily movement and every form of sense activity is the expression of a psychical process, and the idea of independent exercise of the former never occurred to his mind. Dr. Montessori is inclined, however, to exercise the bodily muscles, and later the senses, merely for the sake of their own independent perfection. She thinks that songs, for example, are good when sung during marching, because of their effect upon the lungs, but she discourages too much singing because the aim of the marching is not the cultivation of the sense of rhythm and regularity, but merely of poise. By such a statement Dr. Montessori shows herself to be worlds apart from the spirit and psychological outlook of Seguin, to whom all that was material for the development of the all-important inner life was gladly accepted. Then, again, with respect to the matter of sense activity, whereas to Dr. Montessori the process is taken in practice to be one of perceptual discrimination only, to Seguin the factors of judgment and reasoning should play a far more important part than mere discrimination, and in addition the imagination and appreciation should be awakened and employed. It is now sufficiently well established that sensory acuity and sensory discrimination among people are relatively insignificant in comparison with the greater variations in the higher psychical functions. Thus in cases like those of Laura

Bridgman and Helen Keller, serious deficiency in sensory powers does not to any great extent affect the higher endowments. Montessori seems to regard sense activity as of all-embracing interest in the life of the tiny child; hence her unfortunate exclusion of the humanities from her curriculum, as well as the imaginative and the æsthetic aspects of the other subjects taught.

The results of the training of the deaf-mute and the blind are very enlightening in the way of showing up in clearness and definiteness what should be the true view of sense training. It has been often remarked that the blind usually develop a literary and musical culture utterly beyond the reach of the deaf. The deaf are in every way inferior to the blind where scholarship is concerned, but superior to them in pursuits which have a direct bread-and-butter value. A comparison of the blind and the deaf will show the deaf to be more selfish, more suspicious, more clannish, more untruthful, less emotional, and less sympathetic than the blind—in short, less susceptible to the social ideals which are current among men. The reason must be that such ideals are more difficult of cultivation in the deaf child, and this because spoken language is the principal medium for the transmission of human emotion, without which ideals will never function as ideal forces in the mind, no matter how thoroughly they may be understood intellectually. The human voice is able to express, as nothing else can, the deepest feelings of our nature and the inexhaustible variety of our passion-

ate life. The lyric song of the birds in spring, the soft and crooning lullaby of the mother, the sob of grief from the heart that is near to breaking, the indignant outburst from the generous soul of a champion of the oppressed, the fond entreaty of the lover—how shall the deaf be made to feel the essential reality of these experiences if the latter must be robbed of the divinity of their form? The deaf get far more sense impressions than the blind—the teeming universe of visual phenomena is an open book to them, but they can do no more than decipher in it a few meanings of direct utilitarian value: knowledge of a kind they have, but not wisdom. The deaf spend more time with the things of the senses and the blind more time with the things of the spirit. The reason for the great disparity of intelligence between the deaf and the blind must partly be, then, that the blind are less disturbed than the deaf by the inconsistency of the impressions that come from the outer world, and that consequently they are thrown back upon reflection as the principal means of satisfaction. Again, they get fewer cues to the meaning of impressions than the deaf, and are obliged to rely for the comprehension of what they hear and touch upon their reflective judgment. Indeed, it may almost be said that thought varies inversely as the power of sensory discrimination. Democritus, the ancient sage and philosopher, is reputed to have inflicted blindness upon himself in order that he might be able to reflect the more.

Thus, while sense training will serve as an admirable

basis for later education, it is a wrong principle to concentrate the attention wholly upon it, as Dr. Montessori is apt to do. To neglect the culture of the humanities, as Dr. Montessori does, until sensory discrimination can be pronounced perfect is to miss the most valuable lesson which can be learnt from the education of defectives.

In normal education what is obviously needed is a balanced proportion between the education of the senses and of the intelligence, and a parallel and interrelated development. Too much time devoted to the education of the senses will tend to make a child too like the deaf, quick to see, but slow to think and appreciate. Too little time devoted to sense perception will make him too like the blind, incapable of grasping quickly the significance of a situation and of acting quickly in accordance with its needs.

It is said that the blind child at the age of eight is the equal of the congenitally deaf adult in point of general mental development. If this be so, then the lesson for the educator must be that the ear is a better medium for the culture of the intelligence, at any rate in young people, than the eye. Language teaching, therefore, should certainly be oral in the early stages; indeed, we are apt to rely too much upon the eye in all our modern methods of teaching. Things may be made much more striking and impressive through appeals to the eye, but a realization of their true significance is a matter solely for discussion and the reflection. If we look at the matter from the point of view adopted in

the second chapter, above, we shall see that the eye is the principal medium for the transmission of crowd influences, and for the suggestion of irrational inference, whereas in the absence of appeals to the eye, and therefore as in the case of the blind, there is more likelihood of the presence of real thought and of a strongly marked mental individuality.

Because of the neglect of spoken language it may be here remarked that the development of the Montessori method familiar to all teachers as the "Dalton Plan" of independent study, for older children, is not proving so successful with some types of English child as was anticipated. It is working well with children who find full opportunities at home and elsewhere for intelligent conversation, but with the slum child it is likely to fail unless used cautiously. A fundamental aim of the primary school in a poor quarter must be to develop the faculty of ready and intelligent speech. This can be done only by constant discussion and oral instruction stimulating interest, directing observation, arousing thought, compelling reasoning and encouraging fluent talk. Seguin would have foreseen the problem, and said without hesitation, "speech precedes writing : therefore, proceed to writing as a means of self-expression **only when speech is well established.**" Already, then, the signs are evident in England of a movement back towards class teaching, though this will never be quite what it was in the dull days when the voice of the teacher foghorned away undisturbed in the clouded and sleepy atmosphere of his classroom.

### § 5. The Emotional Defective

There remain to be considered among the subnormal types of mentality those persons who are defective in character. Although mental retardation may not be very apparent in their case, yet, nevertheless, marked mental defects may be present. That is to say, other factors besides intelligence, as we saw from a consideration of psychopathology, are concerned in mental defect. Just as the French school of psychopathologists were apt to treat dissociation of the mind as fundamentally a dissociation of ideas rather than of desires and impulses, so the tests of the French professor, Binet, are apt to suggest that defect is purely a failing of the intellect. Thus the subnormal are said to suffer merely from instability of thought.

Whereas the intellectually defective child is docile and suggestible, the subnormal and unstable child is turbulent, boastful, mischievous, talkative, and usually a great nuisance to his teachers. His reactions to perceptual stimuli are intensely violent upon occasion, and he suffers badly from "nerves." His behaviour is characterized by a plethora of random movements, and his attention is of a very flighty kind. In Binet's opinion, the mental retardation amounts in the majority of such cases to no more than a year as measured in school achievements.

It is probable that this type of defective will be better understood through a study of psychopathology. He is frequently the victim of conflicting impulses and purposes. Now, the great conflict which every defective

who is emotionally unstable finds it almost impossible to resolve is the primary conflict already mentioned between the instincts of self-preservation and those which would draw him completely into social life, between individual values and "herd" values, between egoism and altruism. A similar conflict also faces and confuses the neurotic of unusually matured intelligence, but the advice which one should offer the latter will be very different from that which the defective needs, although in one respect the net result of both is the same in that they will help the troubled individual to rise to a higher plane of living. The high-grade neurotic must be weaned from excessive attachment to or regard for the herd traditions, since frequently he has the germs of creative originality within him which the herd may consider inimical to its own well-being. He must, therefore, be led, in the interests of culture, to trust in his own well-pondered judgment and follow his deepest inner promptings. But the emotional defective has not usually reached that level where the herd traditions will operate to civilize him, even though they afterwards bind him fast in the fetters of custom. He must become conventional before he can become free. He must be won over to the support of ready-made morality before we can hope to educate him sufficiently in self-direction and self-control.

Let us re-emphasize in another way what normal emotional development involves. We progress by identifying ourselves with the aims and interests of groups of ever-widening range complexity and culture;

from an identification of our purposes with those of the family, through sympathy with those of the neighbourhood or the club, the political party or the Church, to devotion to those of the nation and humanity. But in this progress it is, as the French say, the first step which counts for most; and the first step consists in securing healthy adaptation to the life of the family into which we are born. It is in the home that we should first learn to resolve the conflict between the interests of self and others; it is there that the child usually learns to attach its affections to objects and purposes which are able to provide it with greater and more enduring satisfactions than can be secured by following out the blind promptings of racial instinct. Few homes supply completely the ideal conditions for the effective socialization of the child.<sup>21</sup> And if adaptation to the home-life is not perfectly satisfactory, either because the fault lies in the native endowment of the child or in the deficiency of the home, how can the more complex adjustments to the environment of wider groups be effected later? Or to put it in the words of the New Testament, "if a man love not his brother whom he hath seen, how shall he love his brother whom he hath not seen?"

It is a mistake to suppose that the conduct of the unstable child is always of an anti-social variety; he is

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<sup>21</sup> The importance of the home as an educational factor is to be gathered from the figures of Healy, which make it appear that defective home conditions as manifested in quarrelling, alcoholism, immorality, ignorance and neglect, were the principal causative factor in 162 out of 823 cases of juvenile delinquency, and a contributing factor in 394 of the remainder.

capable of showing the greatest of affection as well as of rebelliousness; he is extraordinarily suggestible if rightly managed, especially during the "age of loyalty," and very easily flattered. He needs a quiet environment, it is found, and a life in which he will experience simple, strong, and beneficent rule. Severance from the family of which he is a member would often be a good thing, for it is probable that emotional feeling runs high there, as in him. He needs above all to be trained to self-government and to a sense of responsibility. If given, under supervision, suitable tasks to carry out on his own in the presence of others, he will usually come up to high expectations. In the case of the mentally unbalanced girl, the mothering instinct is usually strong, and provides a lever for effectual training. It will also be noticeable that manual work seems to have a steady-ing effect upon the attention and character of children of this flighty type, and also that they are susceptible to the charms of music, as indeed of most of the arts, and develop histrionic and æsthetic tastes very readily. Eurhythmy, which combines with appreciation of beauty a concomitant means of expression, has been found to be a useful means of harmonizing the warring impulses and calming down the explosive emotions of their minds.

A minimum of repression is desirable. The unstable in character find rigorous discipline hostile and the school environment irksome; consequently they leave school at the earliest possible moment, generally to become a menace to society. But it should be remembered

that this so-called "criminal" type is merely a type of feeble-mindedness which is misunderstood and mistrusted, driven into a criminality for which it is not unadapted by nature; and in this sense only is every feeble-minded child, if he is unfortunate enough to suffer from instability of character, a potential criminal. The idiot and the imbecile do not become criminals in the same way; they drift into wrong-doing, it is true, but usually as the dupes of others.

It is probable that the ne'er-do-wells, the able-bodied paupers, the prostitutes, and the habitual drunkards are largely recruited from the ranks of the feeble-minded unstable "moron" class, through their characteristics of lack of responsibility and self-control. Dr. Goddard is of the opinion that the application of the Binet and other tests to these types would show at least 50 per cent to be defective, either intellectually or temperamentally. It is probable then that physiological factors are responsible for much of this instability of temperament which leads to anti-social conduct.

For the study of this question a juvenile laboratory is a new addition to the machinery of the courts of Denver, through which wayward boys and girls pass before Judge Ben R. Lindsay.

Judge Lindsay asserts that a wayward girl has three ages. He explains it in this manner. A girl may be thirteen years old, have the physical development of a girl of eighteen and the mental development of a child of ten years. The judge says that whenever a girl

comes before his court, the first procedure is to obtain her three ages, through methods developed by medical men and psychologists. He declares he intends to make the juvenile laboratory available to the mothers of Denver, so that they can obtain the three ages of their children, and use this information in providing against indiscretions and possible criminality. The judge describes in this fashion how the department already has aided one mother.

"A mother came to me the other day and complained that she had a daughter of nineteen who gave her no trouble, and a daughter of fifteen who desired social privileges that no mother could give a girl of her age. I told her that her fifteen-year-old daughter was nineteen biologically, and had all the impulses and emotions of the older girl without any of the good judgment that comes with later years. The younger girl is the one who, obeying mature impulses of nature without mature judgment, gets into trouble on automobile parties and at dances.

"We have been used to classifying girls as good and bad. Sometimes the difference is merely that one who came into mature life when she was possessed of good judgment is the good girl, and the other who came into mature physical development when she was young and foolish is the bad girl."

It is a well-founded belief of many experimenters today that we can only make up for a bad home influence by allowing the sufferer opportunities for partnership with his peers in the organized healthy social life

of a simple group which has considerable powers of self-government. If this is a sound belief, then the question of the composition and the occupations of the ideal group in which the defective and mentally unstable child should be educated calls for our careful attention. As regards what the occupations should be there is little dispute. We are generally agreed that the method of education should comprise for the most part outdoor occupations of an active kind, for if abnormal psychology teaches us anything clearly, it is that even in normal persons knowledge that does not issue in actions is either totally worthless or apt to poison the mind. Frequently, too, of course, agricultural farming and other manual occupations draw the mental energy into paths to self-expression, which are in the case of the moron the least obstructed.

The conclusion of the whole matter from the point of view of the educator is that the secret of discipline is not a matter for the teacher to keep locked up in his own breast, but that by some suitable method the responsibility for the mental development of the scholar must be transferred from the teacher and implanted in the child himself. A child may be, in the atmosphere of the school, perfectly well-behaved and yet a veritable hooligan outside; a school may exhibit perfect discipline—if order and precision and obedience are the true criteria of good discipline—and yet the pupils who leave the school to take a place in the outer world may never have been given a chance of planning or directing their own activities; they may have been “spoon-fed”

both morally and intellectually, and with ideas of little nutritive value. What wonder, then, if their tastes in later youth find satisfaction in the less admirable types of mental nourishment? The experience of men who have experimented in training to a sense of responsibility and self-government young persons of criminal tendencies shows very conclusively that the aptitude for these admirable abilities is not a matter which is beyond inculcation in the case of the unfortunately defective youth of highly emotional endowment. These abilities need to be and can be developed and exercised by a system of practical training. We await the appearance of the Seguin of the reformatory who will show us the principles best suited for the training of the mentally unstable, and the Montessori who will show us how to apply these methods to the problems of the normal school. The results of the work of such men as Mr. William George, the founder of the George Junior Republic,<sup>22</sup> and Mr. Homer Lane, of the "Little Commonwealth," have served to point out the path

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<sup>22</sup> "The George Junior Republic is a remarkable institution established in 1895 at Freeville, near the centre of New York State, by Mr. William George. The original features of the institution are that the motto 'Nothing without Labour' is rigidly enforced, and that self-government is carried to a point that, with mere children, would appear whimsical were it not a proved success. The place is, as the name implies, a miniature republic, with laws, legislature, courts, and administrations of its own, all made and carried on by the 'citizens' themselves. The tone and spirit of the place appeared to be excellent, and there is much evidence that in many cases strong and independent character is developed in children whose antecedents have been almost hopeless" (*Encyclo. Brit.*, XV, 617, c.).

which will in time come to be one which all educators will find it expedient and wise to follow.

It seems to us the merest platitude to say that a child will only learn to adopt such habits and ideals as he finds consistent with his deep-seated and fundamental impulses and desires, and that all acquired desires, no matter what pains may have been taken by the educator to inculcate them, will disappear like the rain upon the face of the desert if no opportunities are given for their expression.

Herein lies the principal task of the educator, greater than the task of effective instruction—to create powers of self-direction, of self-control, and self-realization, and to provide opportunities for their healthy expression.



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